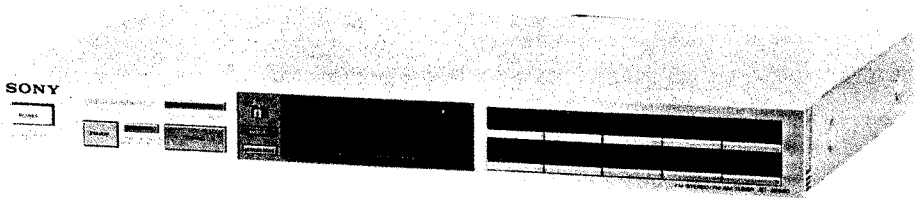
ST-JX500

SERVICE MANUAL

US Model
E Model



SPECIFICATIONS

FM tuner section

Tuning range	87.5 MHz - 108 MHz
Antenna terminals	300 ohms, balanced 75 ohms, unbalanced coaxial input
Intermediate frequency	10.7 MHz
Sensitivity at 50 dB quieting (75 kHz deviation)	16.1 dBf, 3.5 μV (mono) 37.9 dBf, 43 μV (stereo)
Usable sensitivity	1.8 μV, 10.3 dBf (IHF)
Signal-to-noise ratio	90 dB (mono), 86 dB (stereo) at 75 kHz deviation
Harmonic distortion (75 kHz deviation)	0.06% (mono), at 100 Hz 0.06% (mono), 0.09% (stereo) at 1 kHz 0.1% (mono), at 10 kHz
IM distortion (75kHz deviation)	0.06% (mono), 0.09% (stereo)
Separation	55 dB at 1 kHz
Frequency response	30 Hz — 15 kHz $^{+0.2}_{-0.5}$ dB
Selectivity	80 dB at 400 kHz
Capture ratio	1.0 dB
AM suppression ratio	65 dB
Image response ratio	80 dB
IF response ratio	90 dB
Spurious response ratio	100 dB
RF intermodulation	74 dB (IHF)
Sub-carrier product ratio	76 dB
Muting and auto-tuning threshold	Approx. 18 μV, 30 dBf
Output level/impedance (75 kHz deviation)	750 mV, 2.2 k ohms

AM tuner section

Tuning range	530 - 1,610 kHz (with the AM channel plan selector set at 10 kHz) 522 - 1,602 kHz (with the AM channel plan selector set at 9 kHz)
Antenna	Built-in ferrite bar antenna External antenna terminal
Intermediate frequency	450 kHz
Usable sensitivity	With ferrite bar antenna 46 dB/m (at 1000 kHz) With an external antenna 100 μV (at 1000 kHz)
Signal-to-noise ratio	55 dB (50 mV/m)
Harmonic distortion	0.3% (50 mV/m, 400 Hz)
Selectivity	35 dB (9 kHz) 38 dB (10 kHz)
Image response ratio	42 dB (at 1000 kHz)

General

System	PLL quartz-locked digital synthesizer system
Power requirements	US model: 120 V ac, 60 Hz E model: 120, 220 or 240 V ac adjustable 50, 60 Hz
Power consumption	US model: 15 W E model: 12 W
Dimensions	Approx. 430 x 55 x 300 mm (w/h/d) (17 x 2 1/4 x 11 7/8 inches) including projecting parts and controls
Weight	Approx. 3.1 kg (6 lbs 14 oz) net

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

MICROFILM

FM STEREO/FM-AM TUNER

SONY®

AUD

FEATURES

PLL-CIRCUIT EMPLOYING DIRECT COMPARATOR TECHNOLOGY
The ST-JX500 with its refined Phase Locked Loop (PLL) circuit can tune to a frequency with extraordinary precision.
An IC newly developed by Sony allows the comparison frequency to be as high as the 50 kHz channel spacing frequency, thus eliminating the tendency of a low comparison frequency, which was formerly generally employed, to slip into the audio range and degrade the signal-to-noise ratio. The local oscillator output can therefore be directly supplied to the programmable divider section without an additional pre-scaler. We call this new PLL-circuit technology the Direct Comparator method.
The result is almost rippleless local oscillation, greatly reduced spurious radiation, and an extremely high signal-to-noise ratio.

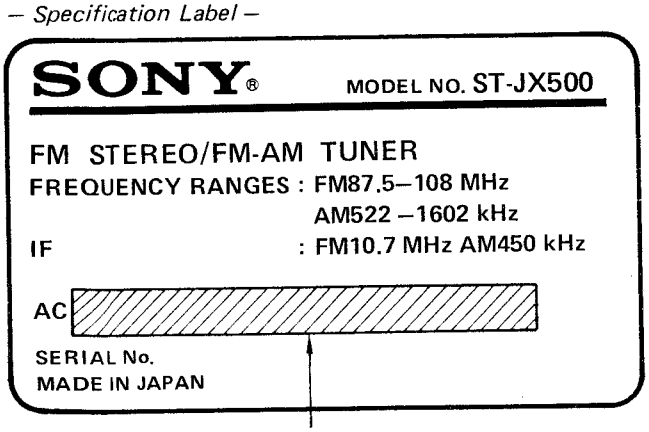
STATE OF THE ART
Every element of the ST-JX500 is chosen with an eye to optimum reception. Dual-gate MOS FETs in the RF amplifier, and four varactors in the front-end block insure high sensitivity and an excellent spurious response ratio. Three uni-phase filters and nine carefully designed limiters in the IF amplifier provide high selectivity. The PLL multiplex decoder insures a flat frequency response, clear separation and very low distortion.

EFFORTLESS TUNING
Tuning is easy using the digital frequency readout in the frequency display window.
Four modes of tuning are available:

Manual tuning, in which each FM and AM band can be scanned either rapidly or step-by-step.
Automatic tuning, in which each band is scanned automatically until a signal is received.
Sweep tuning, in which each band is scanned. In this mode, when a signal is received, scanning stops for a few seconds to allow you to monitor the received station, then the scanning resumes.
Memory preset tuning, in which the frequencies of up to ten stations tuned by one of the above three methods can be stored in the memory. In this mode, you can tune in your favorite station by pushing its station button. The setting of the ST/MUTING button can also be memorized for each station.
The MEMORY SCAN/READ button allows you to scan the preset stations only.

PROGRAM FUNCTION
Using the ST-JX500's Program Function, you can automatically tune in to up to four stations which have been memorized in any sequence you want. Stations will be received one by one as the power is turned on and off by a timer. This program function enables timer-activated reception or recording of a number of stations as compared to the signale station capability of conventional tuners.

MODEL IDENTIFICATION
– Specification Label –



US model: 120 V 60 Hz 12 W
E model: 120/220/240 V ~50/60 Hz 15 W

SAFETY CHECK-OUT (US Model)

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

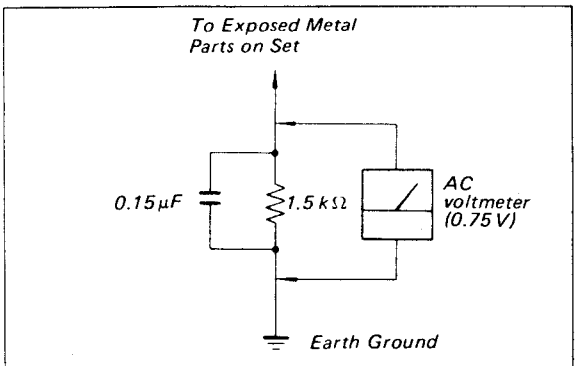


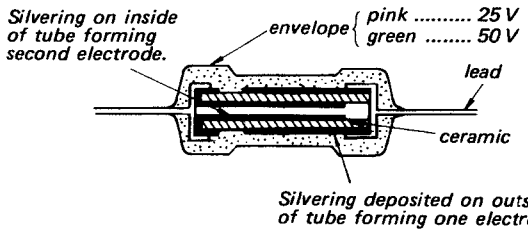
Fig. A. Using an AC voltmeter to check AC leakage.

THE CERAMIC CAPACITORS

This set uses tube-type ceramic capacitors whose shape is identical with the carbon resistors. Be careful not to use resistors instead of capacitors in repairing.

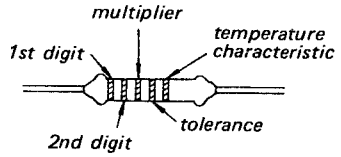
Disc-type ceramic capacitors can be used for replacing those originally used in the set.

Two kinds of drilled holes are provided in some patterns for mounting the tube-type and disc-type ceramic capacitors. Use appropriate holes where applicable.

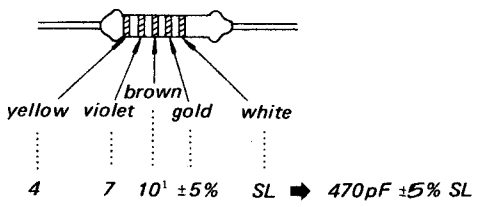

Silvering on inside of tube forming second electrode.
envelope
pink ..... 25 V
green ..... 50 V
lead
ceramic
Silvering deposited on outside of tube forming one electrode.

COLOR CODE (in pF)

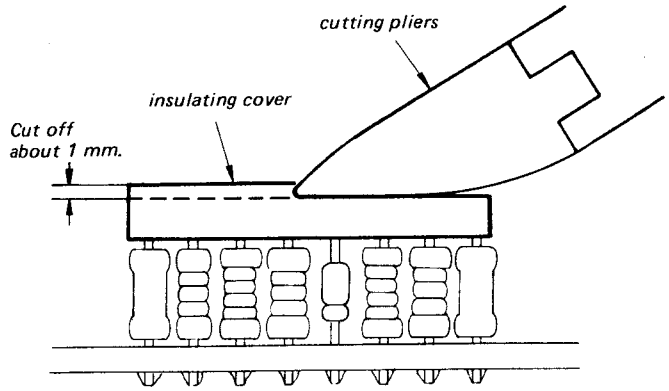
Color	1st or 2nd Digit	Multiplier	Tolerance	Temperature characteristic
brown	1	10^1		Y
red	2	10^2		D
orange	3	10^3		
yellow	4	10^4		RH
green	5			
blue	6			
violet	7			UJ
gray	8		±30%	X
white	9			SL
black	0	10^0	±20%	CH
gold		10^{-1}	± 5%	V
silver		10^{-2}	±10%	B



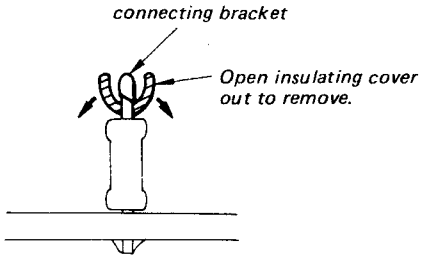
Example:

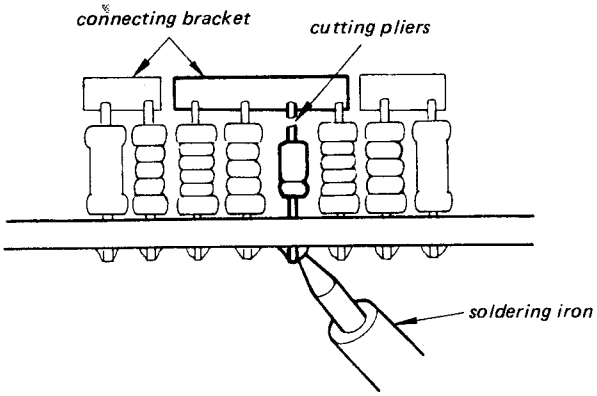


REPAIR METHOD FOR HYBRID CIRCUIT BLOCK (CP501, 503, 504, 505, 601)

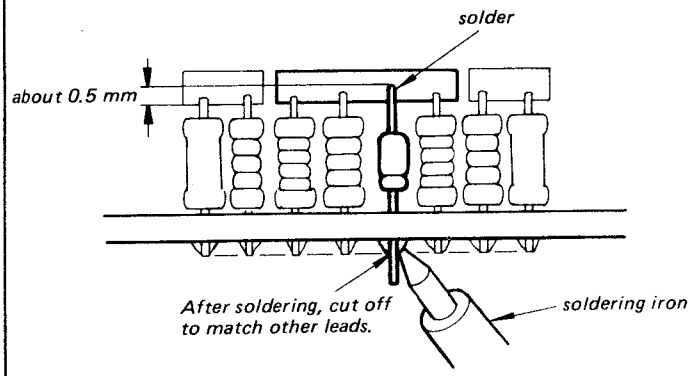


Using a cutting pliers, cut off the upper portion of the insulating cover about 1 mm, exposing the top of the connecting brackets.

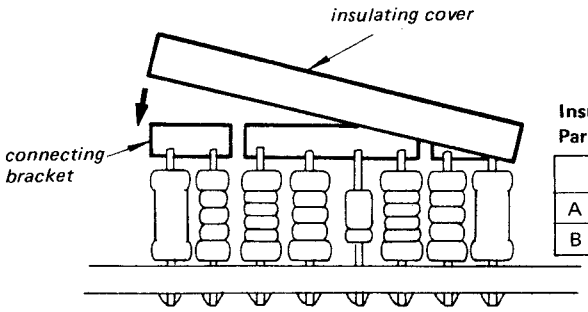




Cut off the lead of the defective part with cutting pliers. Remove solder and take out the defective part.



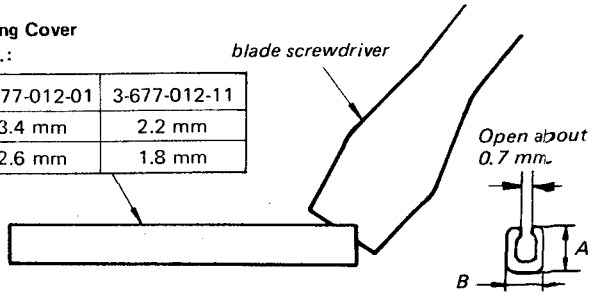
Insert the new part on the board and solder the lead to the board. Cut off the lead on the connecting bracket side so that it overlaps by about 0.5 mm, and solder to the connecting bracket.



Open the insulating cover groove about 0.7 mm and place over the connecting brackets, positioning one end first.

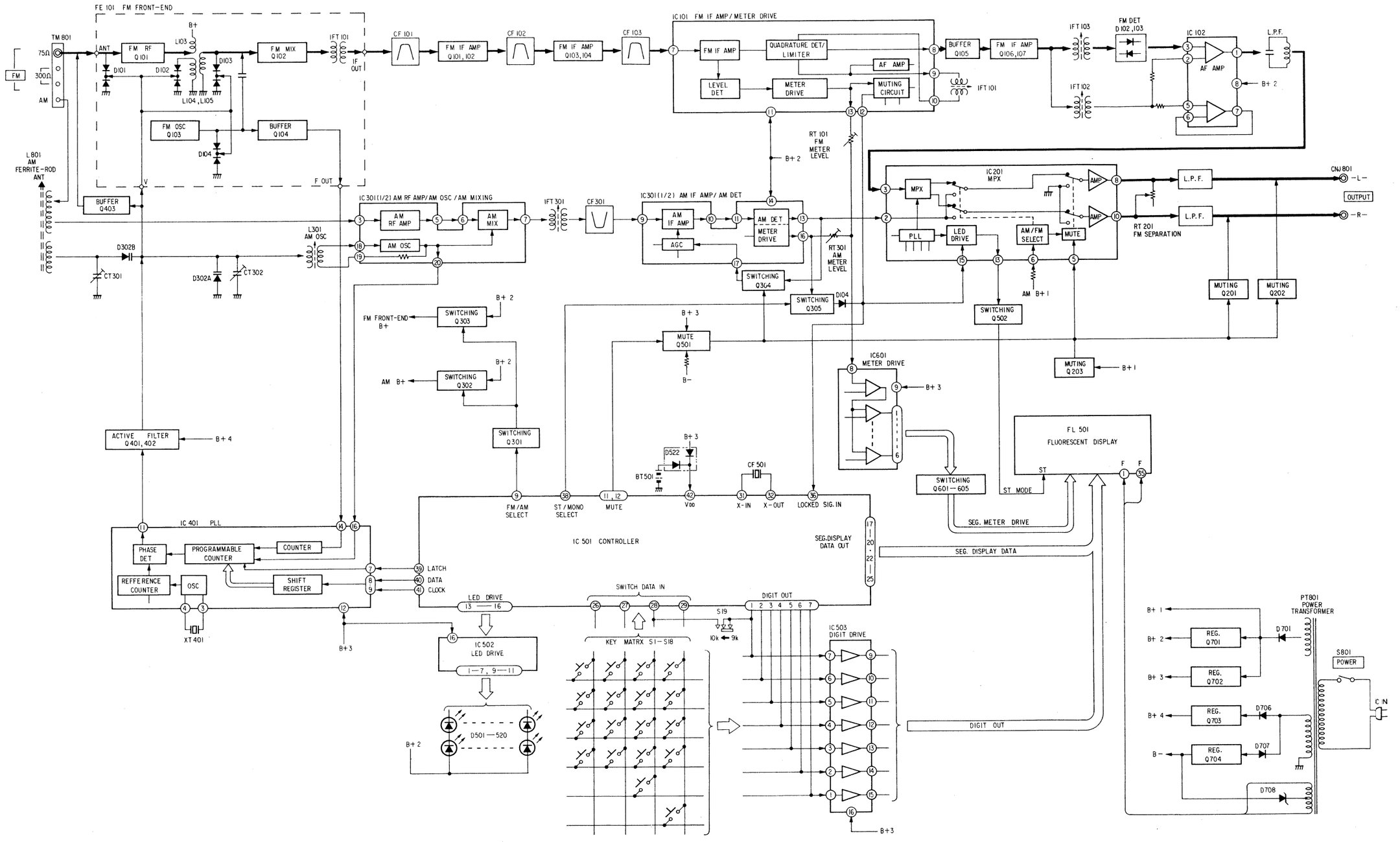
Insulating Cover Part No.:

	3-677-012-01	3-677-012-11
A	3.4 mm	2.2 mm
B	2.6 mm	1.8 mm



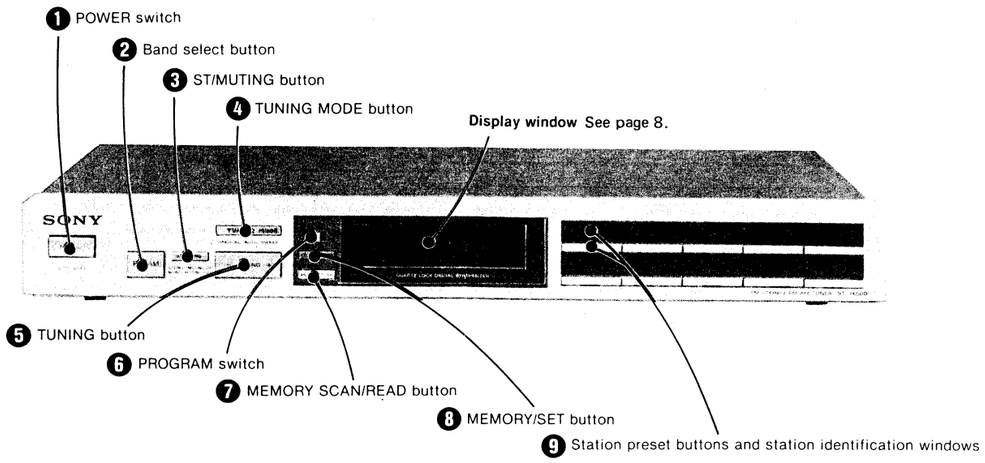
SECTION 1
OUTLINE

1-1. BLOCK DIAGRAM



1-2. LOCATION AND FUNCTION OF CONTROLS

Each number in the photo are keyed to the following descriptive text.


1 POWER switch
2 Band select button
3 ST/MUTING button
4 TUNING MODE button
Display window See page 8.
5 TUNING button
6 PROGRAM switch
7 MEMORY SCAN/READ button
8 MEMORY/SET button
9 Station preset buttons and station identification windows

❶ POWER switch
Depress to turn on the power. To turn the power off, press the switch again.

❷ Band select button
Selects the desired band, FM or AM. Each time the button is pressed, the band will change and the selected band will be indicated in the display window.

❸ ST/MUTING button
This button serves the dual purpose of a mode and FM muting switch.
Normally keep this button engaged (the MUTING indicator illuminates) to eliminate FM interstation noise while tuning from station to station. The tuner operates in stereo mode for stereo sound sources and will be automatically switched to mono mode for monaural sound sources.
When you want to tune in a very weak station, or when an FM program is too noisy, press the button to disengage it. (The MUTING indicator illumination will go out.) This will enable the tuner to receive weak station, although the stereo feature is sacrificed. In this case, keep the amplifier volume down to avoid speaker damage caused by the interstation noise.

❹ TUNING MODE button
Select a tuning system—MANUAL, AUTO or SWEEP. Each time the button is pressed, the selected tuning system will be indicated in the display window.

❺ TUNING button
Press either side of this button to change the received frequency : press the left side [–] to go to a lower frequency and the right side [+] to go to a higher.
During automatic tuning : Press to start automatic frequency scanning. The frequencies below or above that shown on the display window will be scanned automatically until a signal is received. To resume scanning, press the button again.
During sweep tuning : Press to scan the FM/AM band. When a signal is received, the scanning will stop for a few seconds while the SWEEP indicator flashes, then resume scanning automatically until the next signal is received. This operation will be repeated until you press the MEMORY/SET button.
During manual tuning : Press and keep the TUNING button depressed to change the frequency continuously until the figures in the frequency display window approach the desired frequency. The frequency figures will change rapidly. To change the frequency slowly (in 0.05 MHz steps for FM, 10 kHz steps for AM) to tune in a station accurately, press the button and release immediately.
When the frequency figures reach the end of the tuning range of the band, the frequency will then be scanned from the opposite end of the tuning range.

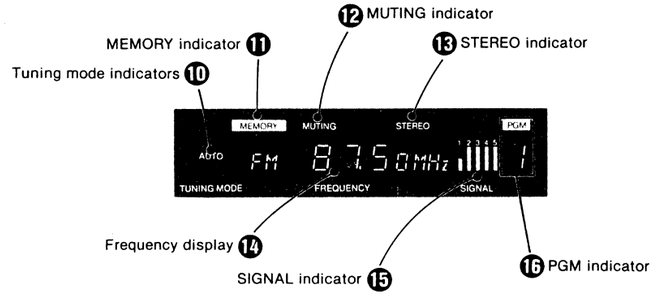
❻ PROGRAM switch
To use the program function, set this switch to ON. For ordinary use, be sure to keep the switch in the OFF position, otherwise any switch except for the POWER switch and the MEMORY/SET and MEMORY SCAN/READ buttons will not function.

❼ MEMORY SCAN/READ button
This button also has a dual purpose. With the PROGRAM switch set to OFF, it works as a MEMORY SCAN button and with the PROGRAM switch set to ON, as a program READ button.
MEMORY SCAN button : Press to automatically scan the stations memorized on the station preset buttons.
READ button: By pushing this button, the programed station order can be checked.

❽ MEMORY/SET button
This button has a dual purpose. With the PROGRAM switch set to OFF, it works as a MEMORY button and with the PROGRAM switch set to ON, as a program SET button.
MEMORY button : Press to memorize your tuned station to a station preset button. The MEMORY indicator will appear in the frequency display window for 4 seconds indicating that the preset memory circuit is standing by.
SET button : Press to program the preset stations in the desired order. The MEMORY indicator will appear indicating that the program circuit is standing by.

❾ Station preset buttons and station identification windows
To call up a memorized station, press the appropriate button. The light in the station identification window above the button will light up when the button is pressed. Station labels (supplied) identifying memorized stations can be placed in these windows.

DISPLAY WINDOW



❿ Tuning mode indicators
The tuning system selected by the TUNING MODE button is displayed.

⓫ MEMORY indicator
When the MEMORY/SET button is pressed, "MEMORY" will appear for 4 seconds indicating that the memory circuit is standing by.

⓬ MUTING indicator
This indicator illuminates when the ST/MUTING button is engaged.

⓭ STEREO indicator
This indicator will light when an FM stereo program of sufficient signal strength is tuned in with the ST/MUTING button engaged.

⓮ Frequency display
The frequency being received is displayed here in digits.

⓯ SIGNAL indicator
Indicates the strength of the tuned signal by the amount of indicator illumination. The fullest illumination means the antenna input signal is strong. When the indicator illuminates only at the low end, it means the antenna input signal is weak.

⓰ PGM (program) indicator
With the PROGRAM switch set to ON, the order in the programmed sequence of the station being received is displayed here.

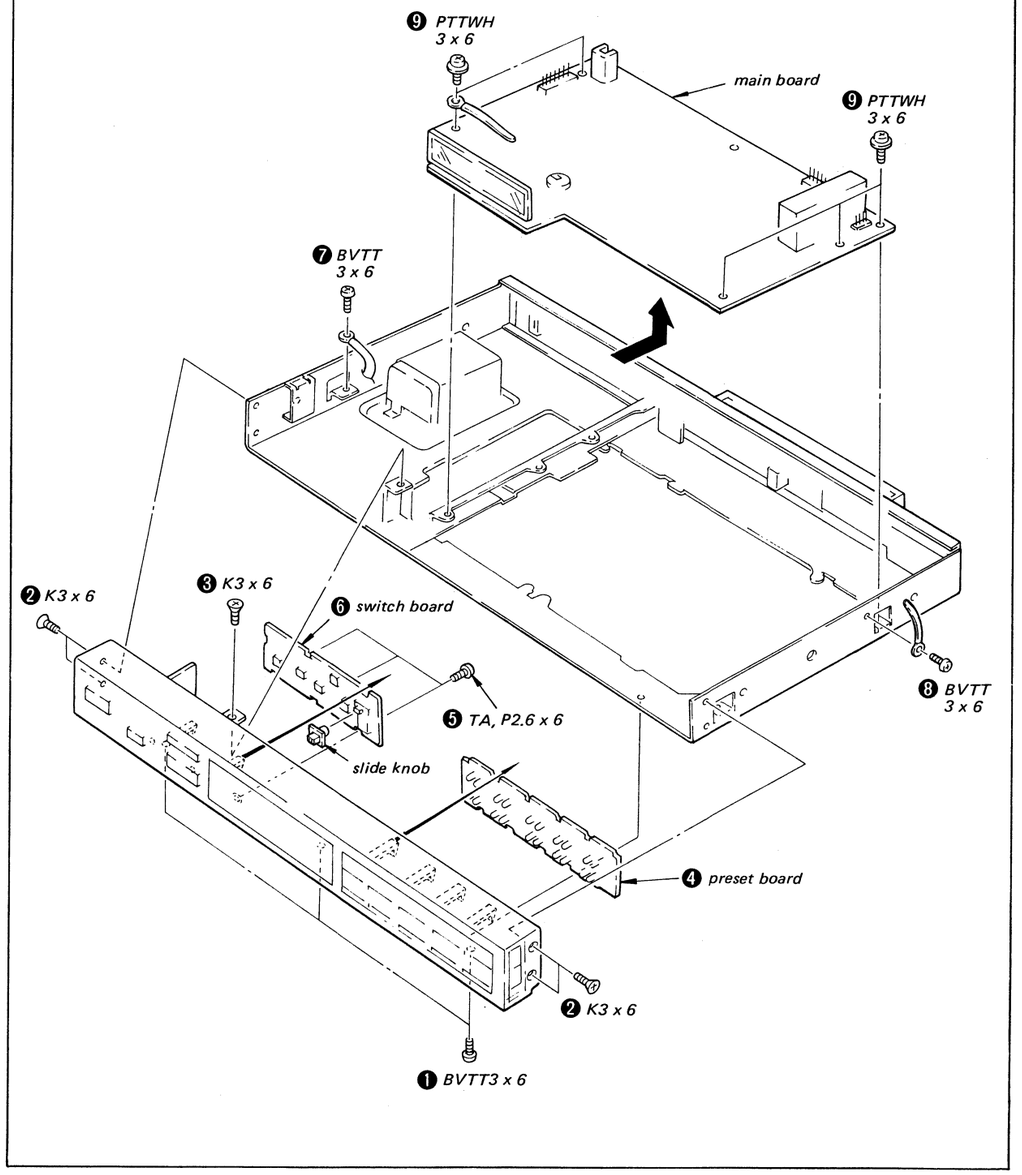
SECTION 2
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

CASE REMOVAL

Remove case by taking out four screws securing case.

MAIN BOARD REMOVAL



SECTION 3
ADJUSTMENTS

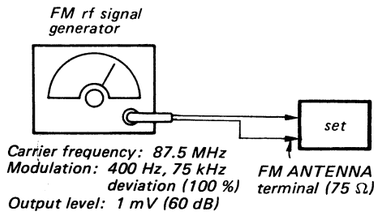
FM SECTION

Gate Voltage Adjustment

Setting:

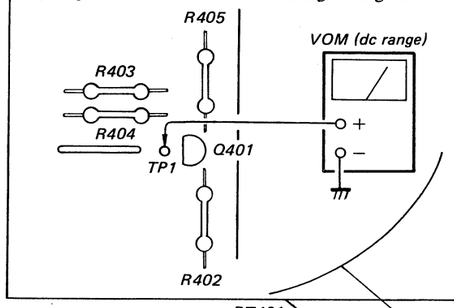
Band Selector switch . . . . . FM
ST/MUTING switch . . . . . OFF

Procedure:

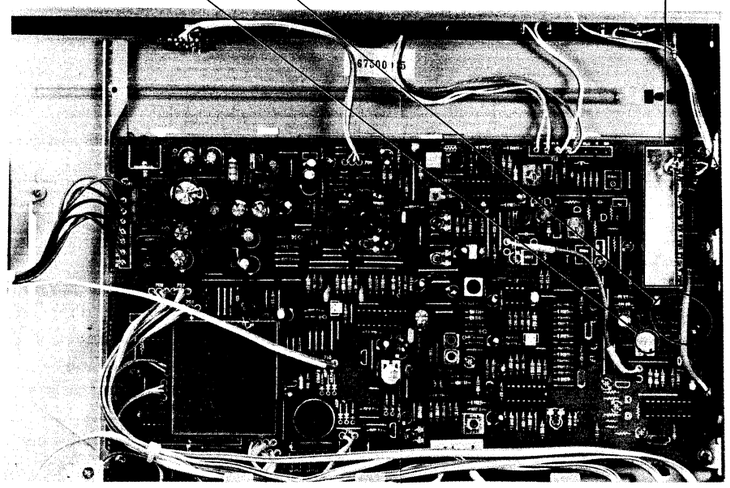

FM rf signal generator
set
Carrier frequency: 87.5 MHz
Modulation: 400 Hz, 75 kHz deviation (100 %)
Output level: 1 mV (60 dB)
FM ANTENNA terminal (75 Ω)

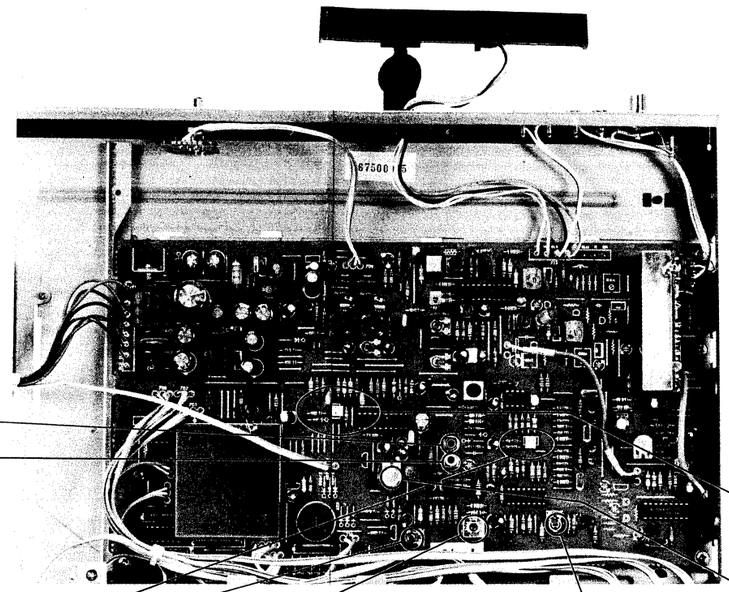
1) Tune the set to 87.5 MHz on FM frequency indicator by pressing TUNING key (±).

2) Adjust RT401 for 1.8 V reading on digital VOM.



The FM front-end is carefully adjusted at the factory and is supplied as one whole block for replacement.



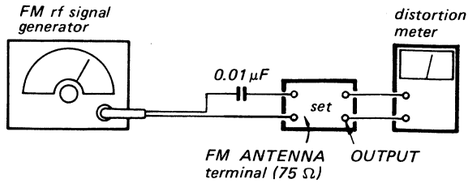


FM Discriminator Alignment

Setting:

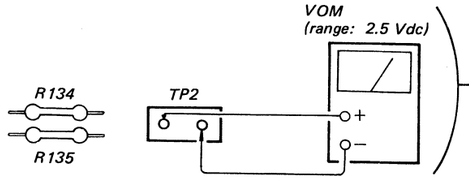
Band Selector switch . . . . . FM
ST/MUTING switch . . . . . OFF

Procedure:



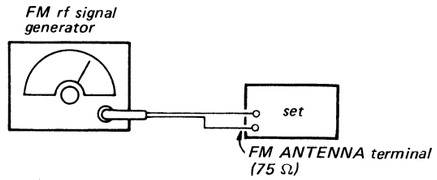
Carrier frequency: *98 MHz*
Output level: *1 mV (60 dB)*
Modulation: *400 Hz, 75 kHz deviation (100 %)*

1. Tune the set to 98 MHz.
2. Adjust IFT103 for 0 V reading on the VOM. . . . . NULL Adjustment
   Note: When the ceramic filter is replaced, these adjustments should be made.
3. Adjust IFT102 for a minimum reading on the distortion meter . . . . . Distortion Adjustment



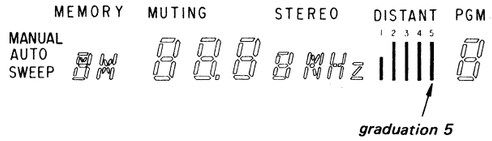
FM Meter Level Adjustment

Procedure:



Carrier frequency: *98 MHz*
Output level: *1 mV (60 dB)*
Modulation: *400 Hz, 75 kHz deviation (100 %)*

Turn RT101 and stop it when the graduation 5 changes from turning off to on.

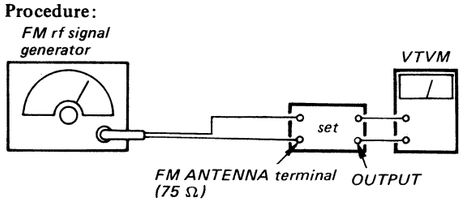


Muting Width Adjustment

Setting:

Band Selector switch . . . . . FM
ST/MUTING switch . . . . . ON
Tuning Frequency display . . . . . 98 MHz

Procedure:



Carrier frequency: *98 MHz ±55 kHz*
Modulation: *400 Hz, 75 kHz deviation (100 %)*
Output level: *1 mV (60 dB)*

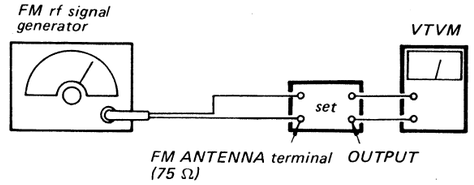
1. With a carrier frequency of 98 MHz +55 kHz, adjust IFT101 so that output signal is obtained.
2. With a carrier frequency of 98 MHz −55 kHz, make sure of output signal indication.
3. When necessary, repeat above steps so that output signal is obtained at same frequency detuning point to both plus and minus directions.

FM Muting Level Adjustment

Setting:

Band Selector switch . . . . . FM
ST/MUTING switch . . . . . ON

Procedure:



Carrier frequency: *98 MHz*
Modulation: *400 Hz, 75 kHz deviation (100 %)*
Output level: *10.5 µV (22 dB)*

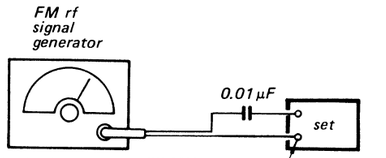
1. Tune the set to 98 MHz by pressing TUNING key (+, −).
2. Turn RT102 and stop it just when the VTVM indication suddenly decreases.

VCO Adjustment

Setting: Band Selector switch: FM
ST/MUTING switch: ON

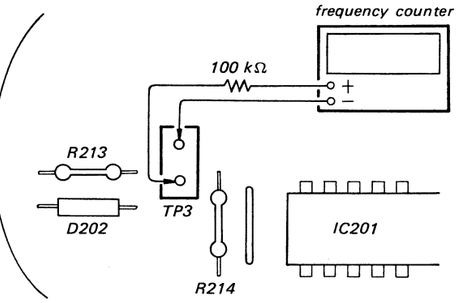
A) Regular Method

Procedure:



Carrier frequency: *98 MHz*
Modulation: *no modulation (monaural)*
Output level: *1 mV (60 dB)*

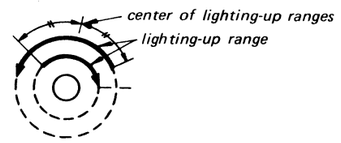
1. Tune the set to 98 MHz.
2. Adjust RT202 for 19 kHz ± 50 Hz on the counter.



B) Simple Method

Procedure:

1. Tune the set to the FM stereo broadcasting signal.
2. Turn RT202 clockwise or counterclockwise and memorize the lighting-up range of the stereo lamp.
3. Secure RT202 at the center of the lighting-up range of both turns as shown below.

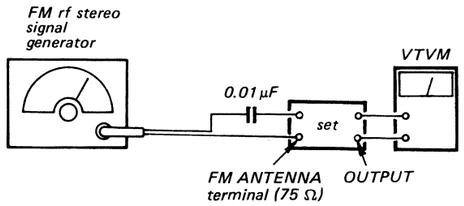


FM Stereo Separation Adjustment

Setting:

Band Selector switch . . . . . FM
ST/MUTING switch . . . . . ON (STEREO)

Procedure:



Carrier frequency: 98 MHz
Output level: 1 mV (60 dB)
Modulation: Stereo

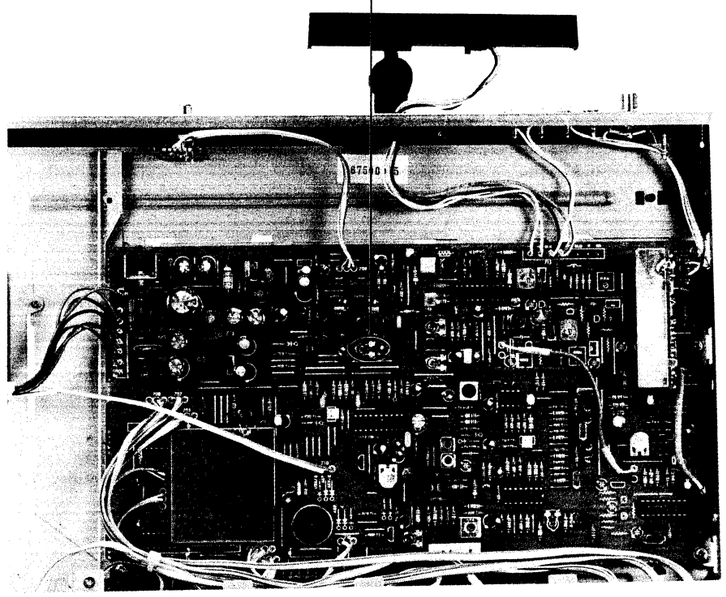
Audio (1 kHz): 33.75 kHz deviation (45 %)
Pilot (19 kHz): 7.5 kHz deviation (10 %)
Sub-channel (38 kHz) 33.75 kHz deviation (45 %)

FM stereo signal generator output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RT201 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RT201 for minimum reading.

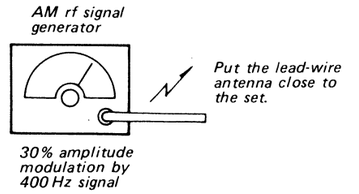
L-CH Stereo separation: Ⓐ – Ⓑ
R-CH Stereo separation: Ⓒ – Ⓓ

The separations of both channels should be equal.

RT201



AM SECTION


AM rf signal generator
Put the lead-wire antenna close to the set.
30% amplitude modulation by 400 Hz signal
VOM (1) (range: 0.5–5 V ac)
set
OUTPUT

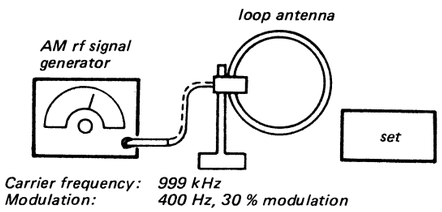
- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

AM Meter Level Adjustment

Setting:

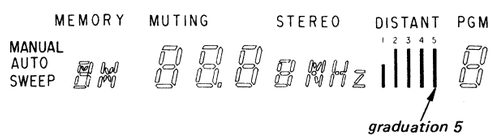
Band Selector Switch: AM

Procedure:



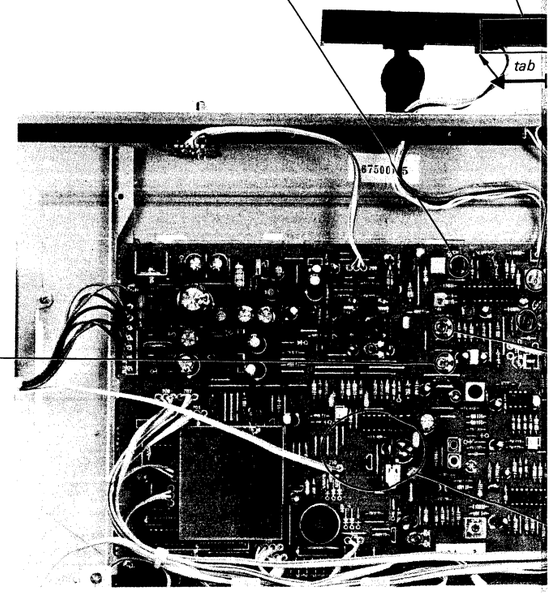
Carrier frequency: 999 kHz
Modulation: 400 Hz, 30 % modulation

1. Set AM rf signal generator so that the AM antenna input level becomes 79 dB/m.
2. Turn RT301 and stop it when the graduation 5 changes from turning off to on.

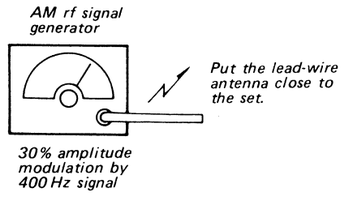


AM IF ALIGNMENT	
Adjust for a maximum reading on VOM (1).	
450 kHz	IFT301

AM TRACKING A	
Adjust for a maxi on VOM (1).	
603 kHz	
L801	



AM SECTION

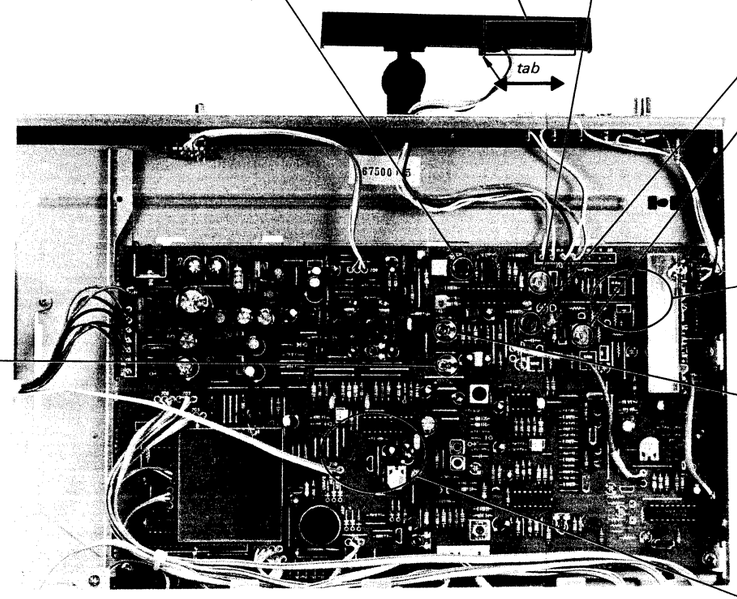


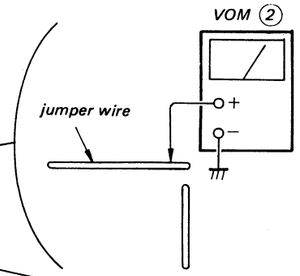
- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

AM IF ALIGNMENT	
Adjust for a maximum reading on VOM (1).	
450 kHz	IFT301

AM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VOM (1).	
603 kHz	1,404 kHz
L801	CT301

AM FREQUENCY COVERAGE ADJUSTMENT		
adjustment part	frequency indication	reading on VOM (2)
L301	522 kHz	1.6 ± 0.1 V
CT302	1,602 kHz	22 ± 0.2 V



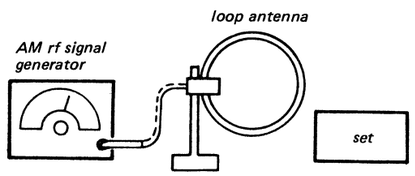


AM Meter Level Adjustment

Setting:

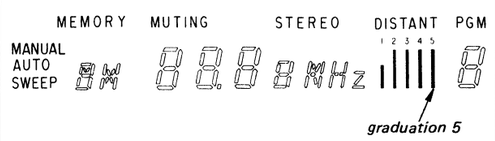
Band Selector Switch: AM

Procedure:



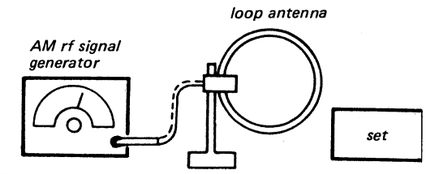
Carrier frequency: 999 kHz
Modulation: 400 Hz, 30 % modulation

1. Set AM rf signal generator so that the AM antenna input level becomes 79 dB/m.
2. Turn RT301 and stop it when the graduation 5 changes from turning off to on.



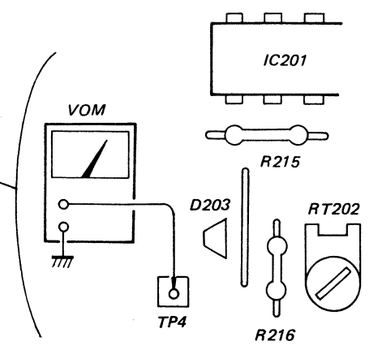
AM Auto Stop Level Adjustment

Procedure:



Carrier frequency: 999 kHz
Modulation: 400 Hz, 30 % modulation

1. Set AM rf signal generator so that the AM antenna input level becomes 55 dB/m.
2. Adjust RT302 for 2.5 V reading on the VOM.

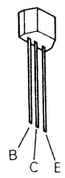


SECTION 4
DIAGRAMS

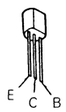
4-1. MOUNTING DIAGRAM
– Conductor Side –

Semiconductor Lead Layouts

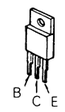
2SA1048-GR
2SC2458
2SC2669



2SB740

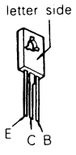


2SC1826-Y

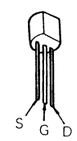


2SD774

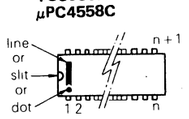
2SD809
letter side



2SK30A-GR3

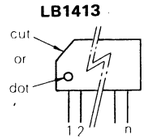


CX778A
LA1235
LA1245
LA3390S
SN74LS145N
TC5066BP
μPC4558C



(Top view)

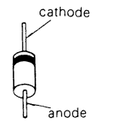
LB1413



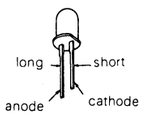
TMP47C21N-3112

(Top view)

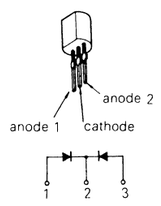
1S1555
1S953-7
10E2
EQA01-06R
HZ16-2L
HZ27-3L
HZ30-2L
HZ6B3L



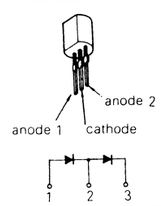
GL5EG521-B



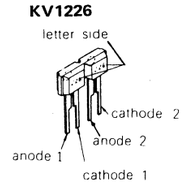
MC921



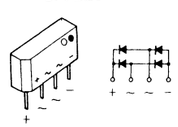
MC931

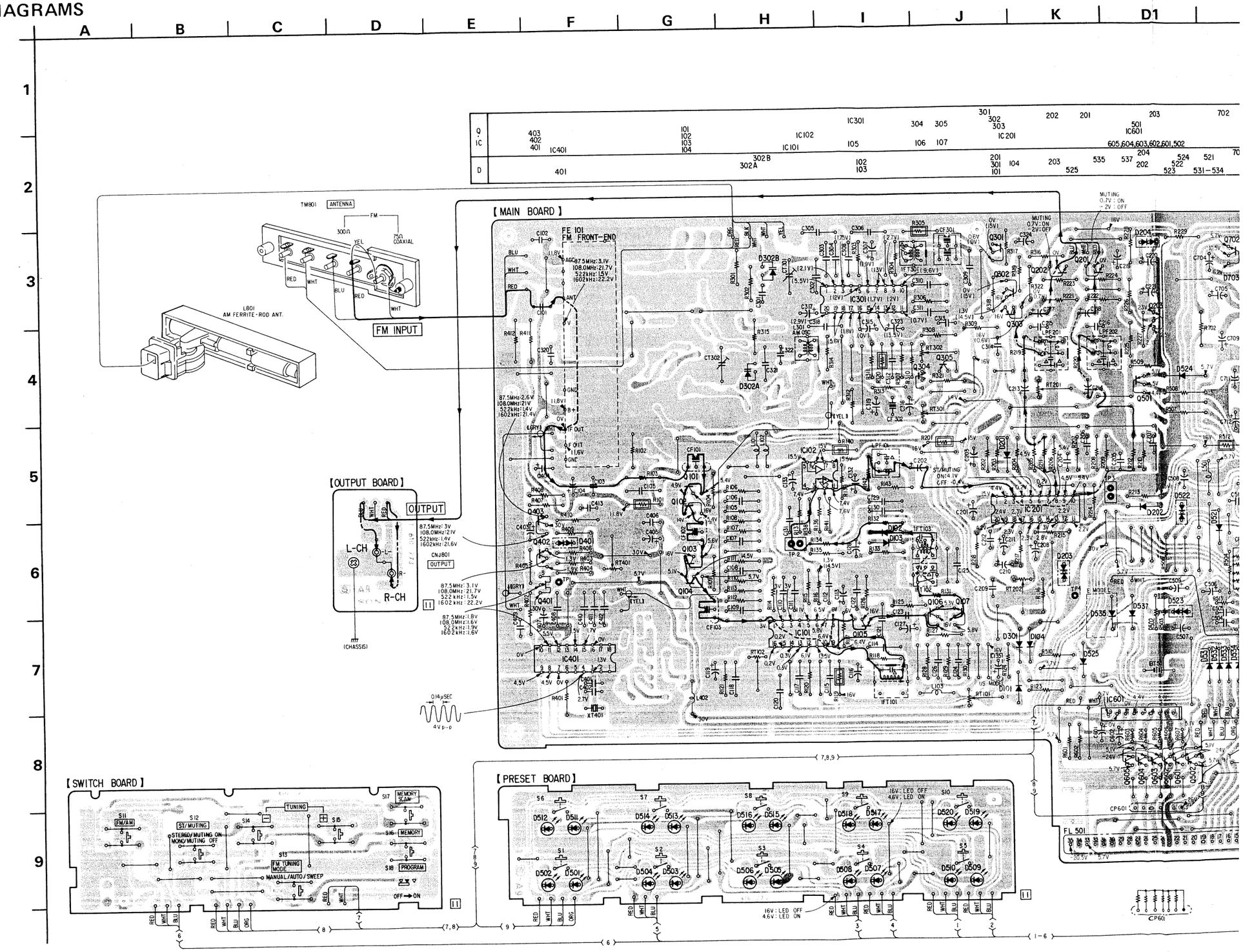


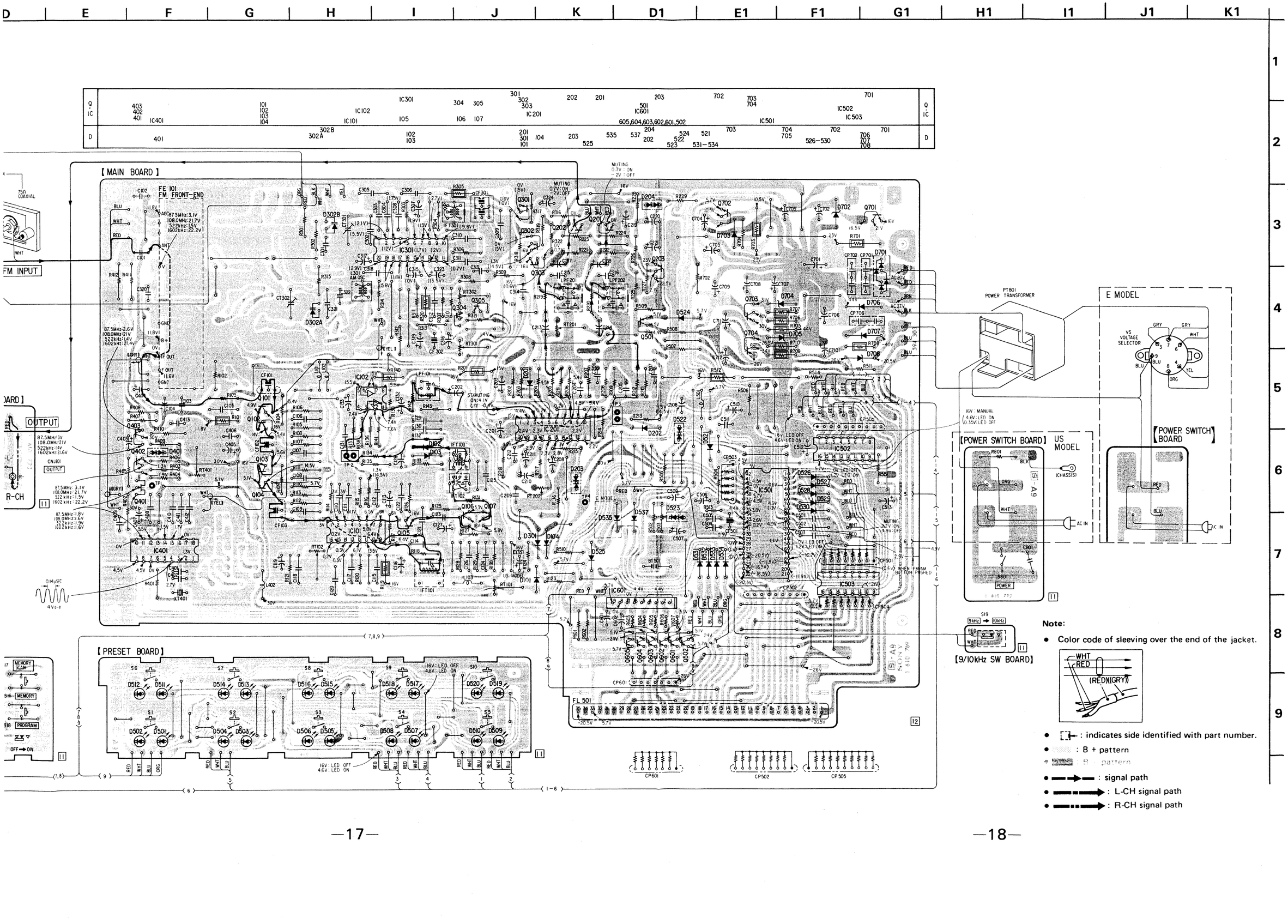
KV1226
letter side



SIVB20





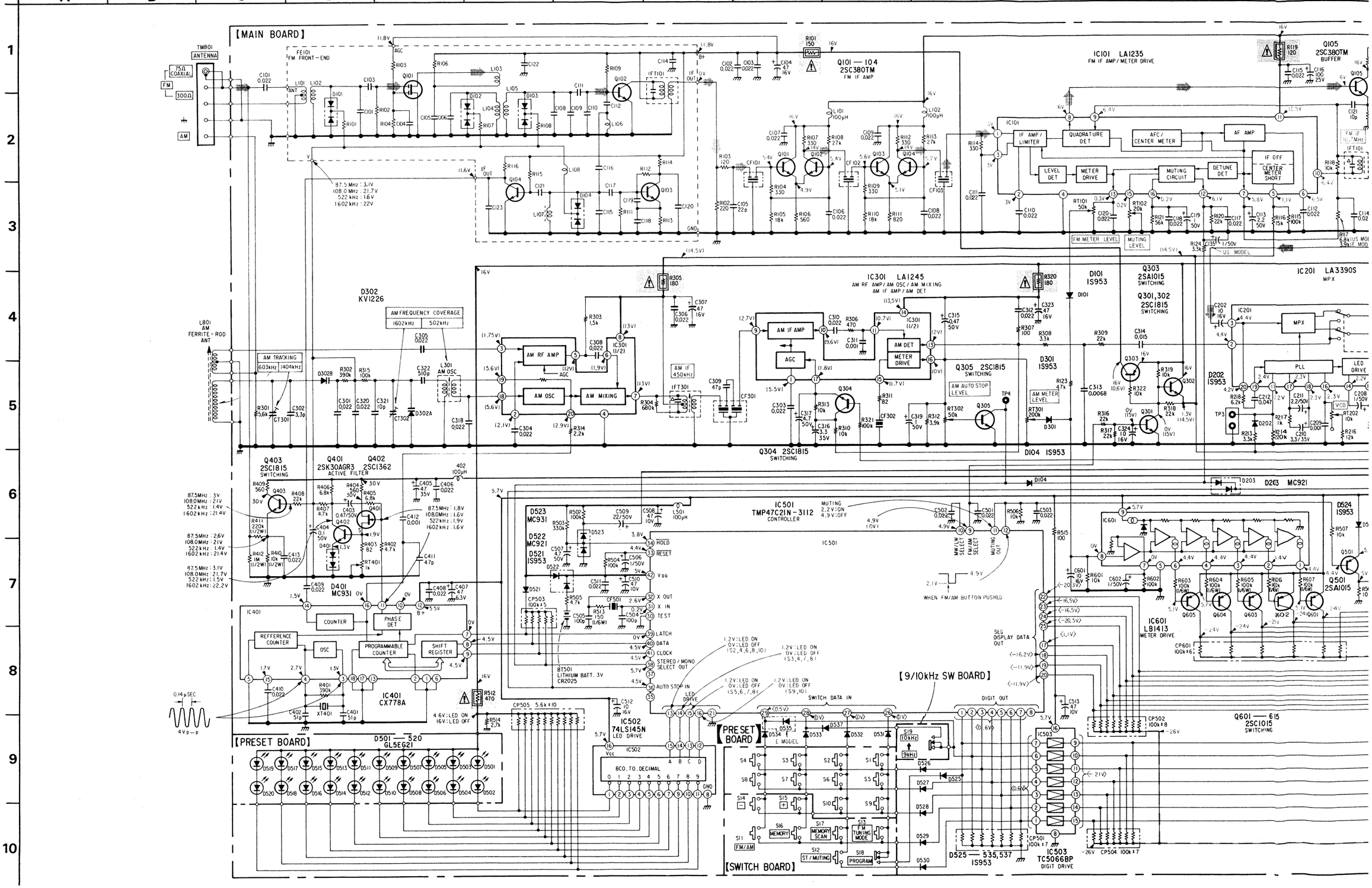


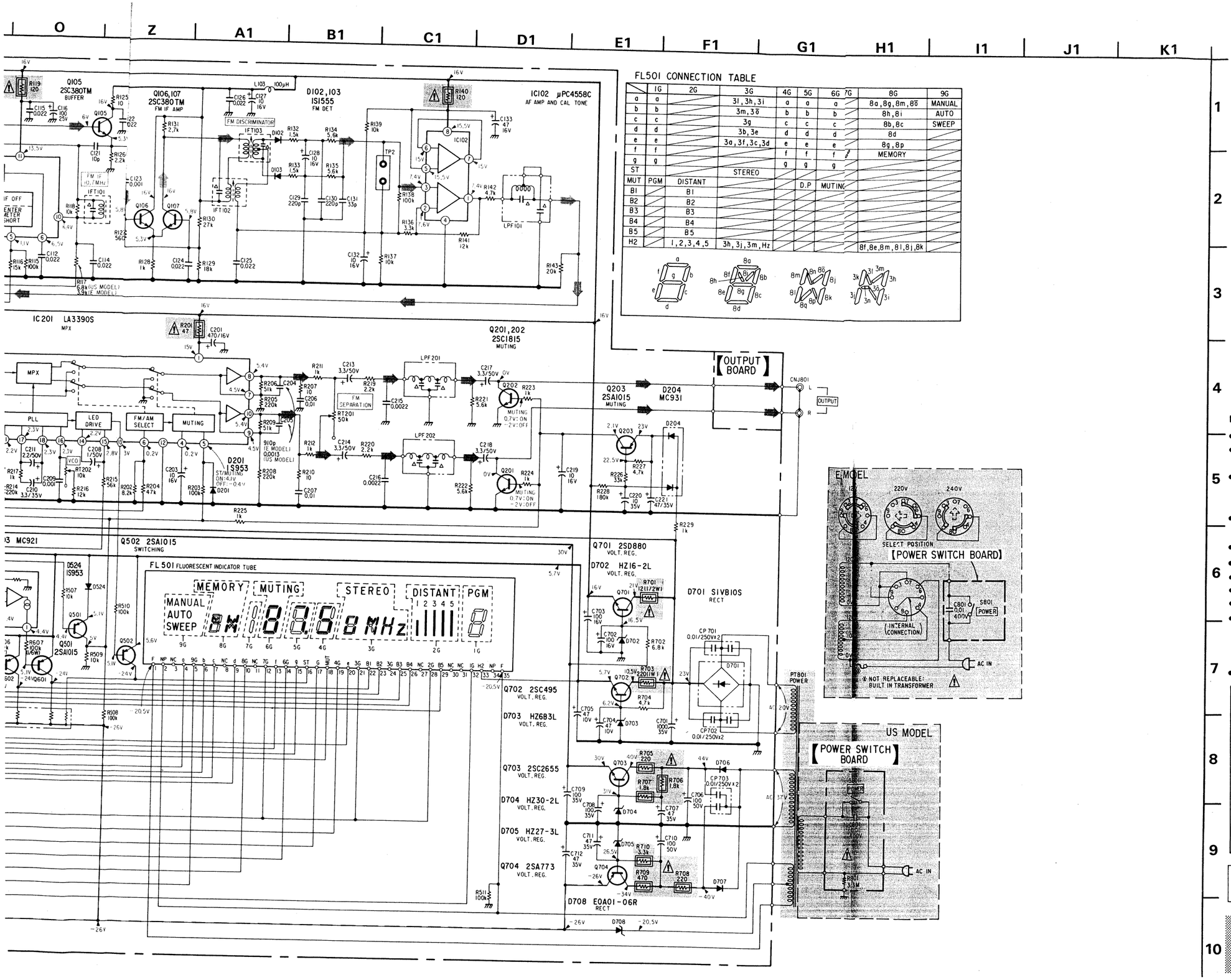
Note:

- Color code of sleeving over the end of the jacket.

- [ ]— : indicates side identified with part number.
- : B + pattern
- : B − pattern
- : signal path
- : L-CH signal path
- : R-CH signal path

4-2. SCHEMATIC DIAGRAM





FL501 CONNECTION TABLE

	1G	2G	3G	4G	5G	6G	7G	8G	9G
a	a		3l,3h,3i	a	a	a		8a,8g,8m,8δ	MANUAL
b	b		3m,3δ	b	b	b		8h,8i	AUTO
c	c		3g	c	c	c		8b,8c	SWEEP
d	d		3b,3e	d	d	d		8d	
e	e		3α,3f,3c,3d	e	e	e		8g,8p	
f	f			f	f	f		MEMORY	
g	g			g	g	g			
ST			STEREO						
MUT	PGM	DISTANT			D.P	MUTING			
B1		B1							
B2		B2							
B3		B3							
B4		B4							
B5		B5							
H2		1,2,3,4,5	3h,3j,3m,Hz					8f,8e,8m,8l,8j,8k	

Note:

- ➡ : signal path
- Components for right channel have same values as for left channel.
- All capacitors are in μF unless otherwise noted. pF : μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms, ¼W unless otherwise noted. kΩ : 1000Ω, MΩ : 1000kΩ
- ⚠ : nonflammable resistor.
- △ : internal component.
- ▭ : adjustment for repair.
- ——: B+ bus.
- – – –: B- bus.
- Readings are taken under no-signal (detuned) conditions with a VOM (50 kΩ/V).
  ( ): AM
  < >: FL501 MANUAL, FM, 87.50 MHz display.
- Switch

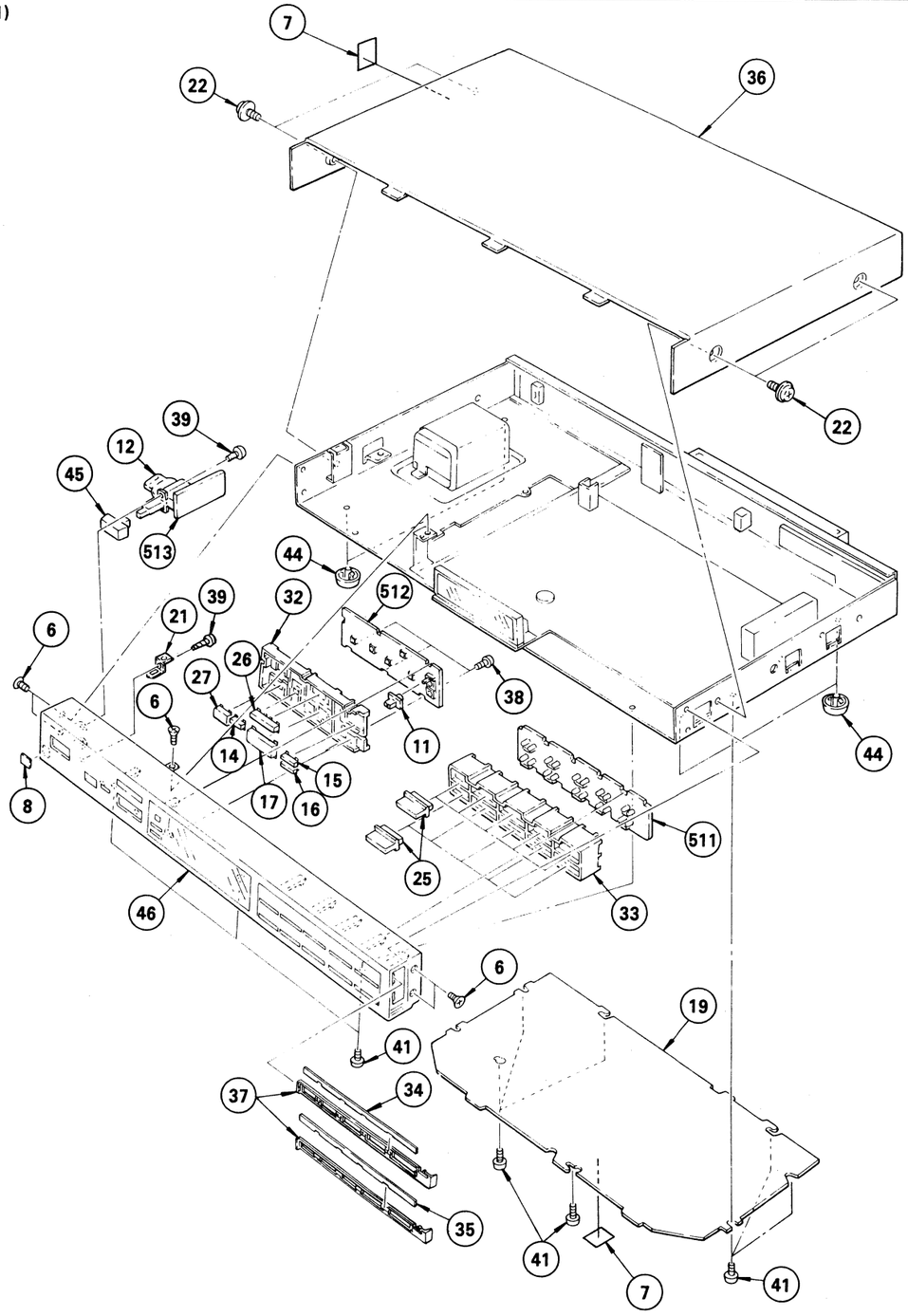
Ref. No.	Switch	Position
S1–10	preset 1–10	OFF
S11	FM/AM	OFF
S12	ST/MUTING	OFF
S13	FM TUNING MODE	OFF
S14	TUNING/–	OFF
S15	TUNING/+	OFF
S16	MEMORY	OFF
S17	MEMORY SCAN	OFF
S18	PROGRAM	OFF
S19	9 K/10 K	9 K
S801	POWER	OFF

Note: Voltages are measured with a VOM (50kΩ/V).

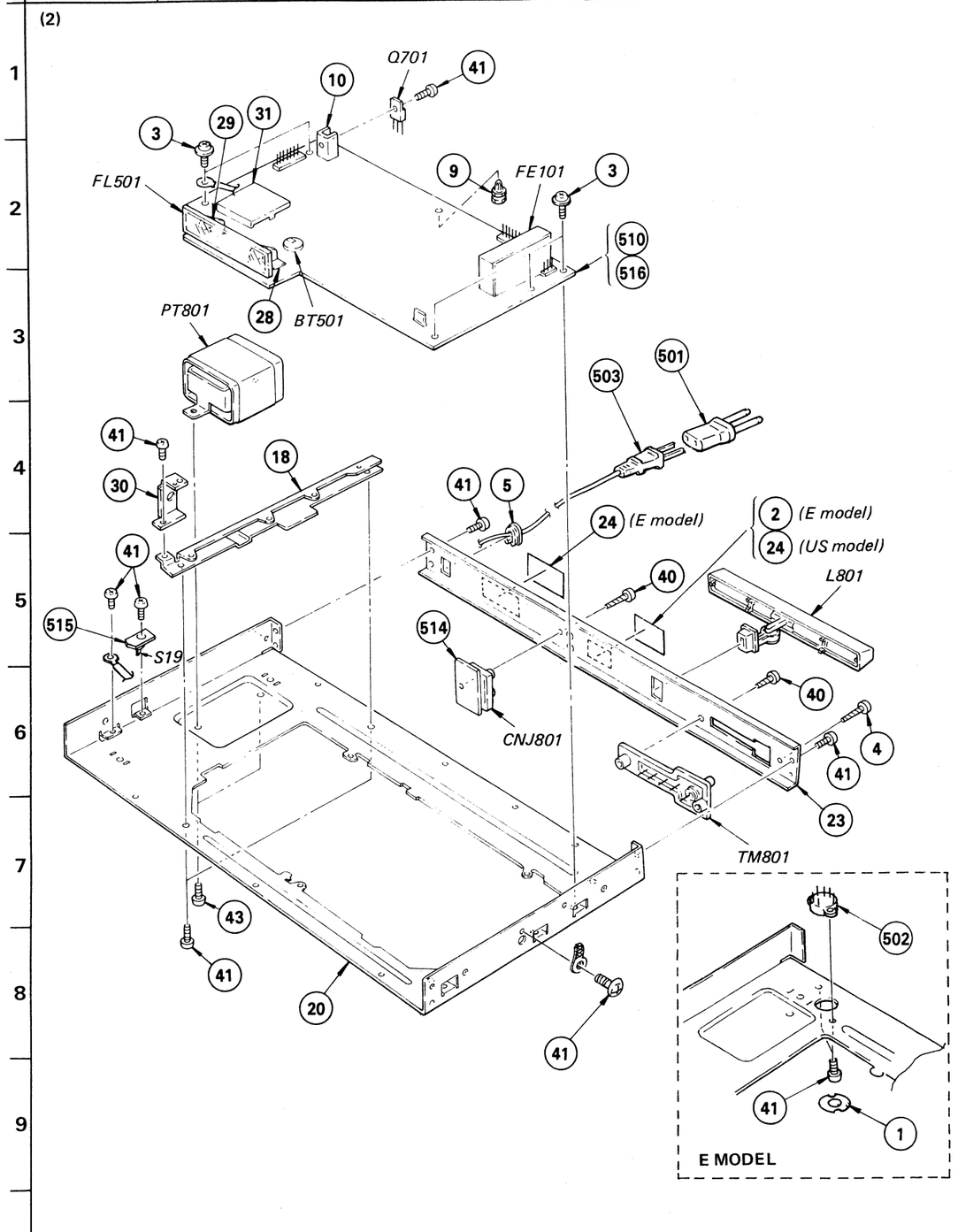
Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

SECTION 5
EXPLODED VIEWS AND PARTS LIST

(1)



(2)



No.

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· If t
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GENERAL SECTION

No.	Part No.	Description
1	♦;2-263-029-00	(E)....LABEL, VOLTAGE SELECTION
2	3-550-458-00	(E)....LABEL, CAUTION, POWER SELECTOR
3	3-703-249-01	SCREW, S TIGHT, +PTTWH 3X6
4	3-703-473-00	SCREW, TERMINAL
5	3-703-571-00	BUSHING (S), CORD
6	3-703-583-00	TIGHT (3X6), PLATE TAP
7	♦;3-703-680-00	(US)...LABEL, CAUTION, SUB, NEW UL
8	3-703-713-01	STICKER, SONY SYMBOL (10)
9	4-861-614-11	HOLDER, PC BOARD
10	♦;4-875-327-01	HEAT SINK
11	4-875-344-00	KNOB, SLIDE
12	4-875-455-01	(E)....COVER, CAPACITOR
13	.....	
14	4-889-211-01	KNOB (18X4), SQUARE
15	4-889-211-11	KNOB (18X4), SQUARE
16	4-889-211-21	KNOB (18X4), SQUARE
17	4-889-212-00	KNOB (32X12), SQUARE
18	♦;4-889-214-00	FRAME
19	♦;4-889-215-00	PLATE, BOTTOM
20	♦;4-889-219-00	(US)...CHASSIS
20	♦;4-889-219-11	(E) .... CHASSIS
21	♦;4-889-222-00	PLATE, GROUND
22	4-889-321-01	SCREW
23	♦;4-889-701-11	(US)...PLATE, JACK
23	♦;4-889-701-41	(E)....PLATE, JACK
24	4-889-710-00	(US)...LABEL, MODEL NUMBER
24	4-889-714-00	(E)....LABEL, MODEL NUMBER
25	4-889-721-00	KNOB, PRESET
26	4-889-722-01	KNOB, SQUARE
27	4-889-723-11	KNOB, SQUARE
28	♦;4-889-724-00	HOLDER (RIGHT), FL TUBE
29	♦;4-889-725-00	HOLDER (LEFT), FL TUBE
30	;4-889-726-00	BRACKET (A)
31	♦;4-889-727-00	PLATE, SHIELD
32	4-889-728-00	HINGE (A)
33	4-889-729-00	HINGE (B)
34	4-889-734-00	LABEL (U1), INDICATOR
35	4-889-735-00	LABEL (U2), INDICATOR
36	4-889-739-00	CASE
37	4-889-740-00	HOLDER, INDICATOR
38	7-685-133-11	SCREW +P 2.6X6 TYPE1
39	7-685-534-24	SCREW +P 2.6X8 TYPE2 NON-SLIT
40	7-685-646-71	SCREW +BVTP 3X8 TYPE2 IT-3

GENERAL SECTION

No.	Part No.	Description
41	7-685-871-01	SCREW +BVTT 3X6 (S)
42	7-685-871-09	SCREW +BVTT 3X6 (S)
43	7-685-880-09	SCREW +BVTT 4X6 (S)
44	X-3701-069-0	FOOT ASSY, M.F
45	X-4875-108-0	KNOB ASSY, POWER
46	X-4889-702-1	PANEL ASSY, FRONT

ACCESSORY & PACKING MATERIAL

No.	Part No.	Description
81	1-501-224-11	ANTENNA,FEEDER
82	1-506-305-00	PLUG, F (FP-33)
83	1-551-734-11	CORD, CONNECTION
84	3-701-630-00	BAG, POLYETHYLENE
85	3-703-390-01	(US)...INSTRUCTION
86	3-773-507-12	(E)....MANUAL, INSTRUCTION
87	3-773-507-21	(US)...MANUAL, INSTRUCTION
88	4-879-798-00	SHEET, PROTECTION
89	4-881-536-00	CUSHION (UPPER)
90	4-881-537-00	CUSHION (LOWER)
91	4-889-703-00	(E)....LABEL (F2), INDICATOR
92	4-889-704-00	(E)....LABEL (A9), INDICATOR
93	4-889-705-00	LABEL (A10), INDICATOR
94	4-889-708-00	LABEL (F1), INDICATOR
95	4-889-744-00	INDIVIDUAL CARTON

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MF:μF, PF:μμF.

RESISTORS
- All resistors are in ohms.
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- MMH : mH, UH : μH

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In each case, U : μ, for example:
UA···: μA···, UPA···: μPA···, UPC···: μPC,
UPD···: μPD···

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
501	⚠.1-526-565-00	(E1)...AC PLUG ADAPTOR			
502	⚠.1-526-576-31	(E)....SELECTOR, POWER VOLTAGE			
503	⚠.1-534-986-XX	(US)...CORD, POWER			
503	⚠.1-551-188-XX	(E)....CORD, POWER			
504	♦;1-535-116-00	TERMINAL			
505	♦;1-535-117-00	TERMINAL			
506	♦;1-535-120-00	TERMINAL			
507	♦;1-535-135-00	BASE POST 14MM (10MM PITCH)			
508	♦;1-535-416-00	TERMINAL			
509	♦;1-560-060-00	PIN, CONNECTOR 2P			
510	♦;1-610-769-00	PC BOARD, MAIN			
511	♦;1-610-770-00	PC BOARD, PRESET			
512	♦;1-610-771-00	PC BOARD, SWITCH			
513	♦;1-610-772-00	PC BOARD, POWER SWITCH			
514	♦;1-610-773-00	PC BOARD, OUTPUT			
515	♦;1-610-774-00	PC BOARD, 9K/10K SWITCH			
516	♦;A-4351-358-A	(US)...MOUNTED PCB, TUNER			
516	♦;A-4351-360-A	(E)....MOUNTED PCB, TUNER			
BT501	1-528-120-00	BATTERY, LITHIUM (CR-2025)			
C101	1-101-005-00	CERAMIC	0.022MF		50V
C102	1-101-005-00	CERAMIC	0.022MF		50V
C103	1-101-005-00	CERAMIC	0.022MF		50V
C104	1-123-821-11	ELECT	47MF	20%	16V
C105	1-161-263-00	CERAMIC	22PF	5%	50V
C106	1-161-494-00	CERAMIC	0.022MF	30%	25V
C107	1-161-494-00	CERAMIC	0.022MF	30%	25V
C108	1-161-494-00	CERAMIC	0.022MF	30%	25V
C109	1-161-494-00	CERAMIC	0.022MF	30%	25V
C110	1-161-494-00	CERAMIC	0.022MF	30%	25V
C111	1-161-494-00	CERAMIC	0.022MF	30%	25V
C112	1-161-494-00	CERAMIC	0.022MF	30%	25V
C113	1-123-612-00	ELECT	2.2MF	20%	50V
C114	1-161-494-00	CERAMIC	0.022MF	30%	25V
C115	1-161-494-00	CERAMIC	0.022MF	30%	25V
C116	1-123-333-00	ELECT	100MF	20%	25V
C117	1-161-494-00	CERAMIC	0.022MF	30%	25V
C118	1-161-494-00	CERAMIC	0.022MF	30%	25V
C119	1-123-611-00	ELECT	1MF	20%	50V
C120	1-161-494-00	CERAMIC	0.022MF	30%	25V
C121	1-161-259-00	CERAMIC	10PF	5%	50V
C122	1-161-494-00	CERAMIC	0.022MF	30%	25V
C123	1-161-323-00	CERAMIC	0.001MF	10%	50V
C124	1-161-494-00	CERAMIC	0.022MF	30%	25V

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C125	1-161-494-00	CERAMIC	0.022MF	30%	25V
C126	1-161-494-00	CERAMIC	0.022MF	30%	25V
C127	1-123-617-00	ELECT	10MF	20%	16V
C128	1-123-356-00	ELECT	10MF	20%	16V
C129	1-161-315-00	CERAMIC	220PF	10%	50V
C130	1-161-315-00	CERAMIC	220PF	10%	50V
C131	1-161-265-00	CERAMIC	33PF	5%	50V
C132	1-123-617-00	ELECT	10MF	20%	16V
C133	1-123-821-11	ELECT	47MF	20%	16V
C135	1-123-611-00	ELECT(US)	1MF	20%	50V
C201	1-123-323-00	ELECT	470MF	20%	16V
C202	1-123-356-00	ELECT	10MF	20%	16V
C203	1-123-617-00	ELECT	10MF	20%	16V
C204	1-104-080-00	(US)...POLYSTYRENE	0.0013MF	5%	50V
C204	1-104-076-00	(E)....STYROL	910PF	5%	50V
C205	1-104-080-00	(US)...POLYSTYRENE	0.0013MF	5%	50V
C205	1-104-076-00	(E)....STYROL	910PF	5%	50V
C206	1-108-579-00	MYLAR	0.01MF	5%	50V
C207	1-108-579-00	MYLAR	0.01MF	5%	50V
C208	1-123-611-00	ELECT	1MF	20%	50V
C209	1-104-077-00	POLYSTYRENE	0.001MF	5%	50V
C210	1-123-613-00	ELECT	3.3MF	20%	35V
C211	1-123-612-00	ELECT	2.2MF	20%	50V
C212	1-108-595-00	MYLAR	0.047MF	5%	50V
C213	1-123-354-00	ELECT	3.3MF	20%	50V
C214	1-123-354-00	ELECT	3.3MF	20%	50V
C215	1-108-563-00	MYLAR	0.0022MF	5%	50V
C216	1-108-563-00	MYLAR	0.0022MF	5%	50V
C217	1-123-354-00	ELECT	3.3MF	20%	50V
C218	1-123-354-00	ELECT	3.3MF	20%	50V
C219	1-123-617-00	ELECT	10MF	20%	16V
C220	1-123-620-00	ELECT	10MF	20%	35V
C221	1-123-359-00	ELECT	47MF	20%	35V
C301	1-101-005-00	CERAMIC	0.022MF		50V
C302	1-161-253-00	CERAMIC	3.3PF	10%	50V
C303	1-161-494-00	CERAMIC	0.022MF	30%	25V
C304	1-161-494-00	CERAMIC	0.022MF	30%	25V
C305	1-161-494-00	CERAMIC	0.022MF	30%	25V
C306	1-161-494-00	CERAMIC	0.022MF	30%	25V
C307	1-123-821-11	ELECT	47MF	20%	16V
C308	1-161-494-00	CERAMIC	0.022MF	30%	25V
C309	1-161-267-00	CERAMIC	47PF	5%	50V
C310	1-161-494-00	CERAMIC	0.022MF	30%	25V
C311	1-161-323-00	CERAMIC	0.001MF	10%	50V

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C312	1-161-494-00	CERAMIC	0.022MF	30%	25V
C313	1-108-575-00	MYLAR	0.0068MF	5%	50V
C314	1-108-583-00	MYLAR	0.015MF	5%	50V
C315	1-123-610-00	ELECT	0.47MF	20%	50V
C316	1-123-613-00	ELECT	3.3MF	20%	35V
C317	1-123-619-00	ELECT	4.7MF	20%	50V
C318	1-161-494-00	CERAMIC	0.022MF	30%	25V
C319	1-123-611-00	ELECT	1MF	20%	50V
C320	1-101-005-00	CERAMIC	0.022MF		50V
C321	1-161-259-00	CERAMIC	10PF	5%	50V
C322	1-104-070-00	POLYSTYRENE	510PF	5%	50V
C323	1-123-821-11	ELECT	47MF	20%	16V
C324	1-123-617-00	ELECT	10MF	20%	16V
C401	1-102-522-00	CERAMIC	51PF	5%	50V
C402	1-102-522-00	CERAMIC	51PF	5%	50V
C403	1-123-610-00	ELECT	0.47MF	20%	50V
C404	1-123-607-00	ELECT	0.1MF	20%	50V
C405	1-123-359-00	ELECT	47MF	20%	35V
C406	1-101-005-00	CERAMIC	0.022MF		50V
C407	1-123-647-11	ELECT	47MF	20%	6.3V
C408	1-161-494-00	CERAMIC	0.022MF	30%	25V
C409	1-101-005-00	CERAMIC	0.022MF		50V
C410	1-161-494-00	CERAMIC	0.022MF	30%	25V
C411	1-161-267-00	CERAMIC	47PF	5%	50V
C412	1-161-323-00	CERAMIC	0.001MF	10%	50V
C413	1-101-005-00	CERAMIC	0.022MF		50V
C501	1-161-494-00	CERAMIC	0.022MF	30%	25V
C502	1-161-494-00	CERAMIC	0.022MF	30%	25V
C503	1-161-494-00	CERAMIC	0.022MF	30%	25V
C504	1-102-529-00	CERAMIC	100PF	5%	50V
C505	1-102-529-00	CERAMIC	100PF	5%	50V
C506	1-123-611-00	ELECT	1MF	20%	50V
C507	1-123-619-00	ELECT	4.7MF	20%	50V
C508	1-123-822-00	ELECT	47MF	20%	10V
C509	1-123-357-00	ELECT	22MF	20%	50V
C510	1-123-822-00	ELECT	47MF	20%	10V
C511	1-101-005-00	CERAMIC	0.022MF		50V
C512	1-123-617-00	ELECT	10MF	20%	16V
C513	1-123-822-00	ELECT	47MF	20%	10V
C601	1-123-617-00	ELECT	10MF	20%	16V
C602	1-123-611-00	ELECT	1MF	20%	50V
C701	1-123-349-00	ELECT	1000MF	20%	35V
C702	1-123-320-00	ELECT	100MF	20%	16V
C703	1-123-320-00	ELECT	100MF	20%	16V
C704	1-123-822-00	ELECT	47MF	20%	10V

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C705	1-123-822-00	ELECT	47MF	20%	10V
C706	1-123-360-00	ELECT	100MF	20%	50V
C707	1-123-359-00	ELECT	47MF	20%	35V
C708	1-123-345-00	ELECT	100MF	20%	35V
C709	1-123-345-00	ELECT	100MF	20%	35V
C710	1-123-360-00	ELECT	100MF	20%	50V
C711	1-123-359-00	ELECT	47MF	20%	35V
C712	1-123-359-00	ELECT	47MF	20%	35V
C801	⚠1-161-744-00	CERAMIC	0.01MF		400V
CF101	1-527-567-00	FILTER, CERAMIC			
CF102	1-527-567-00	FILTER, CERAMIC			
CF103	1-527-567-00	FILTER, CERAMIC			
CF301	1-527-937-00	FILTER, CERAMIC			
CF302	1-527-981-00	FILTER, CERAMIC			
CF501	1-527-822-00	OSCILLATOR, CERAMIC			
CNJ801	1-507-731-00	JACK, PIN 2P, OUTPUT			
CP701	1-102-394-00	CERAMIC	0.01X2		250V
CP702	1-102-394-00	CERAMIC	0.01X2		250V
CP703	1-102-394-00	CERAMIC	0.01X2		250V
CT301	1-141-180-00	CAP, TRIMMER 15P			
CT302	1-141-171-00	CAP, TRIMMER 20P			
D101	8-719-107-57	DIODE 1S953-7			
D102	8-719-815-55	DIODE 1S1555			
D103	8-719-815-55	DIODE 1S1555			
D201	8-719-107-57	DIODE 1S953-7			
D202	8-719-107-57	DIODE 1S953-7			
D203	8-719-000-06	DIODE MC921			
D204	8-719-000-12	DIODE MC931			
D301	8-719-107-57	DIODE 1S953-7			
D302	8-719-912-27	DIODE KV1226			
D303	8-719-912-27	DIODE KV1226			
D401	8-719-000-12	DIODE MC931			
D402	8-719-000-12	DIODE MC931			
D501	8-719-907-92	DIODE GL5EG521-B			
D502	8-719-907-92	DIODE GL5EG521-B			
D503	8-719-907-92	DIODE GL5EG521-B			
D504	8-719-907-92	DIODE GL5EG521-B			
D505	8-719-907-92	DIODE GL5EG521-B			
D506	8-719-907-92	DIODE GL5EG521-B			
D507	8-719-907-92	DIODE GL5EG521-B			
D508	8-719-907-92	DIODE GL5EG521-B			
D509	8-719-907-92	DIODE GL5EG521-B			
D510	8-719-907-92	DIODE GL5EG521-B			
D511	8-719-907-92	DIODE GL5EG521-B			
D512	8-719-907-92	DIODE GL5EG521-B			

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Ref.No.	Part No.	Description
D513	8-719-907-92	DIODE GL5EG521-B
D514	8-719-907-92	DIODE GL5EG521-B
D515	8-719-907-92	DIODE GL5EG521-B
D516	8-719-907-92	DIODE GL5EG521-B
D517	8-719-907-92	DIODE GL5EG521-B
D518	8-719-907-92	DIODE GL5EG521-B
D519	8-719-907-92	DIODE GL5EG521-B
D520	8-719-907-92	DIODE GL5EG521-B
D521	8-719-107-57	DIODE 1S953-7
D522	8-719-000-06	DIODE MC921
D523	8-719-000-12	DIODE MC931
D524	8-719-107-57	DIODE 1S953-7
D525	8-719-107-57	DIODE 1S953-7
D526	8-719-107-57	DIODE 1S953-7
D527	8-719-107-57	DIODE 1S953-7
D528	8-719-107-57	DIODE 1S953-7
D529	8-719-107-57	DIODE 1S953-7
D530	8-719-107-57	DIODE 1S953-7
D531	8-719-107-57	DIODE 1S953-7
D532	8-719-107-57	DIODE 1S953-7
D533	8-719-107-57	DIODE 1S953-7
D534	8-719-107-57	DIODE 1S953-7
D535	8-719-107-57	(E)...DIODE 1S953-7
D537	8-719-107-57	DIODE 1S953-7
D701	8-719-511-20	DIODE S1VB20
D702	8-719-901-62	DIODE HZ16-2L
D703	8-719-910-66	DIODE HZ6B3L
D704	8-719-913-02	DIODE HZ30-2L
D705	8-719-922-73	DIODE HZ27-3L
D706	8-719-200-02	DIODE 10E-2
D707	8-719-200-02	DIODE 10E-2
D708	8-719-936-06	DIODE EQA01-06R
FE101	A-4344-034-A	FM FRONT-END
FL501	1-519-299-00	INDICATOR TUBE, FLUORESCENT
IC101	8-759-812-35	IC LA1235
IC102	8-759-145-58	IC UPC4558C
IC201	8-759-803-90	IC LA3390S
IC301	8-759-812-45	IC LA1245
IC401	8-759-617-78	IC CX-778A
IC501	8-759-201-85	IC TMP47C21N-3112
IC502	8-759-901-45	IC SN74LS145N
IC503	8-759-250-66	IC TC5066BP
IC601	8-759-800-28	IC LB1413

ELECTRICAL PARTS

Ref.No.	Part No.	Description
IFT101	1-404-312-00	TRANSFORMER, IF
IFT102	1-404-485-00	COIL, DISCRIMINATOR (PRIMARY)
IFT103	1-404-486-00	COIL, DISCRIMINATOR (SECONDARY)
IFT301	1-404-413-00	TRANSFORMER, IF
L101	1-408-575-00	MICRO INDUCTOR 100UH
L102	1-408-575-00	MICRO INDUCTOR 100UH
L103	1-408-575-00	MICRO INDUCTOR 100UH
L301	1-405-927-00	COIL, MW OSC
L401	.....	
L402	1-408-575-00	MICRO INDUCTOR 100UH
L501	1-408-575-00	MICRO INDUCTOR 100UH
L801	1-402-044-00	ANTENNA, FERRITE-ROD (MW)
LPF101	1-235-266-00	FILTER, LOW PASS
LPF201	1-235-164-00	FILTER, LOW PASS
LPF202	1-235-164-00	FILTER, LOW PASS
PT801⚠	1-447-660-00	(US)...TRANSFORMER, POWER
PT801⚠	1-447-662-00	(E)....TRANSFORMER, POWER
Q101	8-729-266-93	TRANSISTOR 2SC2669
Q102	8-729-266-93	TRANSISTOR 2SC2669
Q103	8-729-266-93	TRANSISTOR 2SC2669
Q104	8-729-266-93	TRANSISTOR 2SC2669
Q105	8-729-266-93	TRANSISTOR 2SC2669
Q106	8-729-266-93	TRANSISTOR 2SC2669
Q107	8-729-266-93	TRANSISTOR 2SC2669
Q201	8-729-245-83	TRANSISTOR 2SC2458
Q202	8-729-245-83	TRANSISTOR 2SC2458
Q203	8-729-204-83	TRANSISTOR 2SA1048-GR
Q301	8-729-245-83	TRANSISTOR 2SC2458
Q302	8-729-245-83	TRANSISTOR 2SC2458
Q303	8-729-204-83	TRANSISTOR 2SA1048-GR
Q304	8-729-245-83	TRANSISTOR 2SC2458
Q305	8-729-245-83	TRANSISTOR 2SC2458
Q401	8-729-203-05	TRANSISTOR 2SK30A-GR3
Q402	8-729-664-48	TRANSISTOR 2SC1362-48
Q403	8-729-245-83	TRANSISTOR 2SC2458
Q404	8-729-203-05	TRANSISTOR 2SK30A-GR3
Q405	8-729-664-48	TRANSISTOR 2SC1362-48
Q501	8-729-204-83	TRANSISTOR 2SA1048-GR
Q502	8-729-204-83	TRANSISTOR 2SA1048-GR
Q601	8-729-204-83	TRANSISTOR 2SA1048-GR
Q602	8-729-204-83	TRANSISTOR 2SA1048-GR
Q603	8-729-204-83	TRANSISTOR 2SA1048-GR
Q604	8-729-204-83	TRANSISTOR 2SA1048-GR
Q605	8-729-204-83	TRANSISTOR 2SA1048-GR
Q701	8-729-382-63	TRANSISTOR 2SC1826-Y

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Q702	8-729-180-93	TRANSISTOR 2SD809				
Q703	8-729-177-43	TRANSISTOR 2SD774				
Q704	8-729-374-02	TRANSISTOR 2SB740				
R101	⚠1-247-111-00	CARBON	150	5%	1/4W	F
R102	1-246-457-00	CARBON	220	5%	1/4W	
R103	1-246-451-00	CARBON	120	5%	1/4W	
R104	1-246-461-00	CARBON	330	5%	1/4W	
R105	1-246-503-00	CARBON	18K	5%	1/4W	
R106	1-246-467-00	CARBON	560	5%	1/4W	
R107	1-246-461-00	CARBON	330	5%	1/4W	
R108	1-246-507-00	CARBON	27K	5%	1/4W	
R109	1-246-461-00	CARBON	330	5%	1/4W	
R110	1-246-503-00	CARBON	18K	5%	1/4W	
R111	1-246-471-00	CARBON	820	5%	1/4W	
R112	1-246-461-00	CARBON	330	5%	1/4W	
R113	1-246-507-00	CARBON	27K	5%	1/4W	
R114	1-246-461-00	CARBON	330	5%	1/4W	
R115	1-246-521-00	CARBON	100K	5%	1/4W	
R116	1-246-501-00	CARBON	15K	5%	1/4W	
R117	1-246-487-00	(US)...CARBON	3.9K	5%	1/4W	
R117	1-246-493-00	(E)....CARBON	6.8K	5%	1/4W	
R118	1-246-497-00	CARBON	10K	5%	1/4W	
R119	⚠1-247-109-00	CARBON	120	5%	1/4W	F
R120	1-246-505-00	CARBON	22K	5%	1/4W	
R121	1-246-515-00	CARBON	56K	5%	1/4W	
R123	1-246-513-00	CARBON	47K	5%	1/4W	
R124	1-246-485-00	CARBON	3.3K	5%	1/4W	
R125	1-246-425-00	CARBON	10	5%	1/4W	
R126	1-246-481-00	CARBON	2.2K	5%	1/4W	
R127	1-246-467-00	CARBON	560	5%	1/4W	
R128	1-246-473-00	CARBON	1K	5%	1/4W	
R129	1-246-503-00	CARBON	18K	5%	1/4W	
R130	1-246-507-00	CARBON	27K	5%	1/4W	
R131	1-246-483-00	CARBON	2.7K	5%	1/4W	
R132	1-246-477-00	CARBON	1.5K	5%	1/4W	
R133	1-246-477-00	CARBON	1.5K	5%	1/4W	
R134	1-246-491-00	CARBON	5.6K	5%	1/4W	
R135	1-246-491-00	CARBON	5.6K	5%	1/4W	
R136	1-246-485-00	CARBON	3.3K	5%	1/4W	
R137	1-246-497-00	CARBON	10K	5%	1/4W	
R138	1-246-521-00	CARBON	100K	5%	1/4W	
R139	1-246-497-00	CARBON	10K	5%	1/4W	
R140	⚠1-247-109-00	CARBON	120	5%	1/4W	F
R141	1-246-499-00	CARBON	12K	5%	1/4W	

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- Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.
- If there are two or more same circuitsin a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF:μF, PF:μμF.

RESISTORS
- All resistors are in ohms.
- F : nonflammable

COILS
- MMH : mH, UH : μH

SEMICONDUCTORS
In each case, U : μ, for example:
UA···: μA···, UPA···: μPA···, UPC···: μPC,
UPD···: μPD···

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

ELECTRICAL PARTS

Ref.No.	Part No.	Description				
R142	1-246-489-00	CARBON	4.7K	5%	1/4W	
R143	1-246-504-00	CARBON	20K	5%	1/4W	
R201	⚠1-247-099-00	CARBON	47	5%	1/4W	F
R202	1-246-495-00	CARBON	8.2K	5%	1/4W	
R203	1-246-521-00	CARBON	100K	5%	1/4W	
R204	1-246-513-00	CARBON	47K	5%	1/4W	
R205	1-246-529-00	CARBON	220K	5%	1/4W	
R206	1-246-514-00	CARBON	51K	5%	1/4W	
R207	1-246-425-00	CARBON	10	5%	1/4W	
R208	1-246-529-00	CARBON	220K	5%	1/4W	
R209	1-246-514-00	CARBON	51K	5%	1/4W	
R210	1-246-425-00	CARBON	10	5%	1/4W	
R211	1-246-473-00	CARBON	1K	5%	1/4W	
R212	1-246-473-00	CARBON	1K	5%	1/4W	
R213	1-246-485-00	CARBON	3.3K	5%	1/4W	
R214	1-246-529-00	CARBON	220K	5%	1/4W	
R215	1-246-515-00	CARBON	56K	5%	1/4W	
R216	1-246-499-00	CARBON	12K	5%	1/4W	
R217	1-246-473-00	CARBON	1K	5%	1/4W	
R218	1-246-492-00	CARBON	6.2K	5%	1/4W	
R219	1-246-481-00	CARBON	2.2K	5%	1/4W	
R220	1-246-481-00	CARBON	2.2K	5%	1/4W	
R221	1-246-491-00	CARBON	5.6K	5%	1/4W	
R222	1-246-491-00	CARBON	5.6K	5%	1/4W	
R223	1-246-473-00	CARBON	1K	5%	1/4W	
R224	1-246-473-00	CARBON	1K	5%	1/4W	
R225	1-246-473-00	CARBON	1K	5%	1/4W	
R226	1-246-509-00	CARBON	33K	5%	1/4W	
R227	1-246-489-00	CARBON	4.7K	5%	1/4W	
R228	1-246-527-00	CARBON	180K	5%	1/4W	
R229	1-246-473-00	CARBON	1K	5%	1/4W	
R301	1-246-491-00	CARBON	5.6K	5%	1/4W	
R302	1-246-535-00	CARBON	390K	5%	1/4W	
R303	1-246-477-00	CARBON	1.5K	5%	1/4W	
R304	1-246-541-00	CARBON	680K	5%	1/4W	
R305	⚠1-247-113-00	CARBON	180	5%	1/4W	F
R306	1-246-465-00	CARBON	470	5%	1/4W	
R307	1-246-449-00	CARBON	100	5%	1/4W	
R308	1-246-485-00	CARBON	3.3K	5%	1/4W	
R309	1-246-505-00	CARBON	22K	5%	1/4W	
R310	1-246-497-00	CARBON	10K	5%	1/4W	
R311	1-246-447-00	CARBON	82	5%	1/4W	
R312	1-246-487-00	CARBON	3.9K	5%	1/4W	
R313	1-246-497-00	CARBON	10K	5%	1/4W	
R314	1-246-481-00	CARBON	2.2K	5%	1/4W	

ELECTRICAL PARTS

Ref.No.	Part No.	Description				
R315	1-246-521-00	CARBON	100K	5%	1/4W	
R316	1-246-505-00	CARBON	22K	5%	1/4W	
R317	1-246-505-00	CARBON	22K	5%	1/4W	
R318	1-246-505-00	CARBON	22K	5%	1/4W	
R319	1-246-497-00	CARBON	10K	5%	1/4W	
R320	⚠1-247-113-00	CARBON	180	5%	1/4W	F
R321	1-246-521-00	CARBON	100K	5%	1/4W	
R322	1-246-497-00	CARBON	10K	5%	1/4W	
R401	1-246-535-00	CARBON	390K	5%	1/4W	
R402	1-246-489-00	CARBON	4.7K	5%	1/4W	
R403	1-246-447-00	CARBON	82	5%	1/4W	
R404	1-246-467-00	CARBON	560	5%	1/4W	
R405	1-246-493-00	CARBON	6.8K	5%	1/4W	
R406	1-246-493-00	CARBON	6.8K	5%	1/4W	
R407	1-246-489-00	CARBON	4.7K	5%	1/4W	
R408	1-246-505-00	CARBON	22K	5%	1/4W	
R409	1-246-467-00	CARBON	560	5%	1/4W	
R410	1-244-897-00	CARBON	10K	5%	1/2W	
R411	1-244-929-00	CARBON	220K	5%	1/2W	
R412	1-244-945-00	CARBON	1M	5%	1/2W	
R502	1-246-497-00	CARBON	10K	5%	1/4W	
R503	1-246-533-00	CARBON	330K	5%	1/4W	
R504	1-246-521-00	CARBON	100K	5%	1/4W	
R505	1-246-489-00	CARBON	4.7K	5%	1/4W	
R506	1-246-497-00	CARBON	10K	5%	1/4W	
R507	1-246-497-00	CARBON	10K	5%	1/4W	
R508	1-246-521-00	CARBON	100K	5%	1/4W	
R509	1-246-497-00	CARBON	10K	5%	1/4W	
R510	1-246-521-00	CARBON	100K	5%	1/4W	
R511	1-246-521-00	CARBON	100K	5%	1/4W	
R512	⚠1-247-123-00	CARBON	470	5%	1/4W	F
R513	1-247-811-00	CARBON	150	5%	1/6W	
R514	1-246-483-00	CARBON	2.7K	5%	1/4W	
R515	1-246-499-00	CARBON	100	5%	1/4W	
R601	1-246-497-00	CARBON	10K	5%	1/4W	
R602	1-246-521-00	CARBON	100K	5%	1/4W	
R603	1-247-879-00	CARBON	100K	5%	1/6W	
R604	1-247-879-00	CARBON	100K	5%	1/6W	
R605	1-247-879-00	CARBON	100K	5%	1/6W	
R606	1-247-879-00	CARBON	100K	5%	1/6W	
R607	1-247-879-00	CARBON	100K	5%	1/6W	
R701	⚠1-247-194-00	CARBON	12	5%	1/2W	F
R702	1-246-493-00	CARBON	6.8K	5%	1/4W	
R703	⚠1-213-135-00	METAL OXIDE	220	5%	1W	F
R704	1-246-489-00	CARBON	4.7K	5%	1/4W	
R705	⚠1-247-115-00	CARBON	220	5%	1/4W	F

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ELECTRICAL PARTS

Ref.No.	Part No.	Description				
R706	⚠1-247-137-00	CARBON	1.8K	5%	1/4W	F
R707	⚠1-247-137-00	CARBON	1.8K	5%	1/4W	F
R708	⚠1-247-115-00	CARBON	220	5%	1/4W	F
R709	⚠1-247-123-00	CARBON	470	5%	1/4W	F
R710	⚠1-247-143-00	CARBON	3.3K	5%	1/4W	F
R801	⚠1-202-725-00	(US)...SOLID	3.3M	10%	1/2W	
RT101	1-226-238-00	RES, ADJ, CARBON 50K				
RT102	1-226-237-00	RES, ADJ, CARBON 20K				
RT201	1-226-238-00	RES, ADJ, CARBON 50K				
RT202	1-228-505-00	RES, ADJ, METAL GLAZE 10K				
RT301	1-226-240-00	RES, ADJ, CARBON 200K				
RT302	1-226-238-00	RES, ADJ, CARBON 50K				
RT401	1-226-663-00	RES, ADJ, METAL GLAZE 1K				
S1	1-554-210-00	SWITCH, PUSH, PRESET				
S2	1-554-210-00	SWITCH, PUSH, PRESET				
S3	1-554-210-00	SWITCH, PUSH, PRESET				
S4	1-554-210-00	SWITCH, PUSH, PRESET				
S5	1-554-210-00	SWITCH, PUSH, PRESET				
S6	1-554-210-00	SWITCH, PUSH, PRESET				
S7	1-554-210-00	SWITCH, PUSH, PRESET				
S8	1-554-210-00	SWITCH, PUSH, PRESET				
S9	1-554-210-00	SWITCH, PUSH, PRESET				
S10	1-554-210-00	SWITCH, PUSH, PRESET				
S11	1-553-739-21	SWITCH, KEY BOARD, FM/AM				
S12	1-553-739-21	SWITCH, KEY BOARD, ST/MUTING				
S13	1-553-739-21	SWITCH, KEY BOARD, FM TUNING				
S14	1-553-739-21	SWITCH, KEY BOARD, TUNING/ -				
S15	1-553-739-21	SWITCH, KEY BOARD, TUNING/ +				
S16	1-553-739-21	SWITCH, KEY BOARD, MEMORY				
S17	1-553-739-21	SWITCH, KEY BOARD, MEMORY SCAN				
S18	1-554-165-00	SWITCH, SLIDE, PROGRAM				
S19	1-554-165-00	SWITCH, SLIDE, 9/10KHz				
S801	⚠1-553-318-00	SWITCH, PUSH, POWER				
TM801	1-536-665-00	TERMINAL BOARD (ANTENNA)				
XT401	1-567-125-00	VIBRATOR, CRYSTAL				

CAPACITORS:
MF:μF, PF:μμF.

RESISTORS
- All resistors are in ohms.
- F : nonflammable

COILS
- MMH : mH, UH : μH

SEMICONDUCTORS
In each case, U : μ, for example:
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